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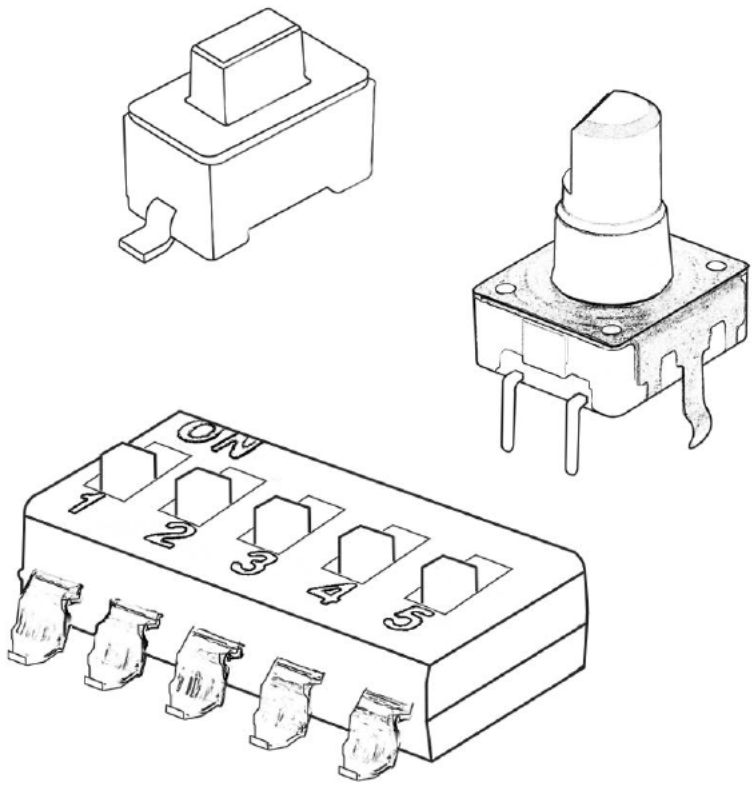

switches

OVERALL SOLUTION EXPERT

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Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < A >	Surface Mount	TVAU25		Miniature	3	2.1	0.5/0.7	—	10Kpcs/Reel	2
		TVAU19-H		Miniature	3	2.6	0.65	—	10Kpcs/Reel	3
		TVAU19-N		Miniature	3	2.6	0.50	—	10Kpcs/Reel	3
		THAF01		Horizontal	3.5	3	1.4	—	3Kpcs/Reel	4
		TVAF02		Miniature	3.5	3	1.8	—	3Kpcs/Reel	4
		TVAF03		Miniature	3.35	3.35	1.5/2.0	●	4Kpcs/Reel	5
		TVAF17		Miniature	3.35	3.35	0.85	●	5Kpcs/Reel	6
		TVAF18		Miniature	3.1	3.1	0.75	—	5Kpcs/Reel	6
		THAM04		Horizontal	4.6	2.3	1.8	—	3Kpcs/Reel	7
		THAM05		Horizontal	4.6	2.3	1.8	—	3Kpcs/Reel	7
		THAM15		Horizontal	4.6	2.3	2.65	—	3Kpcs/Reel	8
		THAM16		Dust-Poof	4.6	2.3	1.8	—	3Kpcs/Reel	8
		TVAF06		Miniature	3.9	2.9	2.0	—	3Kpcs/Reel	9
		TVAU07		Miniature	3.9	2.9	2.0	—	3Kpcs/Reel	9
		THAU08		Horizontal	3.9	2.9	1.5	—	3Kpcs/Reel	10
		THAF09		Horizontal	3.9	2.9	1.5	—	3Kpcs/Reel	10
		TVAU10		Miniature	4.2	3.2	2.5	—	3Kpcs/Reel	11
		TVAF11		Miniature	4.2	3.2	2.5	—	3Kpcs/Reel	11
		THAM12		Horizontal	4.5	2.56	3.3	—	2Kpcs/Reel	12
		THAM16		Horizontal	5.7	2.5	3.5	—	2Kpcs/Reel	12
		THAU13		Horizontal	4.7	3.5	1.6	—	3Kpcs/Reel	13
		THAF14		Horizontal	4.7	3.5	1.6	—	3Kpcs/Reel	13
		TVAU22		Miniature	3.7	3.7	0.35	—	10Kpcs/Reel	14
		TVAF28		Miniature	3.5	3.0	1.7	—	3Kpcs/Reel	15
		TVAU29		Miniature	3.5	3.0	1.7	—	3 Kpcs/Reel	15
		TVAU23		Miniature	4.7	3.6	2.5	—	3Kpcs/Reel	16
		TVAF24		Miniature	4.7	3.6	2.5	—	3Kpcs/Reel	16
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Tact Switch < B >	Surface Mount	THBM02		Horizontal	7.0	2.5	3.5	—	2Kpcs/Reel	17
		THBM03		Horizontal	7.0	2.5	3.5	—	2Kpcs/Reel	17
		THBM05		Horizontal	6.1	4.0	1.8	—	2Kpcs/Reel	19

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Tact Switch < B >	Surface Mount	TVBR14		Vertical	6.0	3.5	4.3/5.0	—	1.5Kpcs/Reel	20
		TVBF09		Vertical	6.0	3.5	4.3/5.0	—	1.5Kpcs/Reel	21
		TVBU10		Vertical	6.0	3.5	4.3/5.0	—	1.5Kpcs/Reel	21
		TVBM11		Vertical	6.0	3.5	4.3/5.0	—	1.5Kpcs/Reel	22
		TVBM17		Dust-proof	6.1	3.7	2.5	●	3Kpcs/Reel	24
		TVBF18		Dust-proof	6.1	3.7	2.5	●	3Kpcs/Reel	24
		TVBU19		Dust-proof	6.1	3.7	2.5	●	3Kpcs/Reel	24
		TVBM20		Vertical	6.1	3.7	2.5	—	3Kpcs/Reel	25
		TVBP21		Vertical	6.0	3.5	2.5	—	3Kpcs/Reel	25
		TVBF22		Normal Closed	6.0	3.8	2.6	—	3Kpcs/Reel	26
	Snap-in	THBP04		Horizontal	6.0	3.5	3.5	—	1Kpcs/Bulk	18
		THBP07		Horizontal	7.3	6.0	4.3	—	1Kpcs/Bulk	18
		TVBP06		Vertical	6.0	3.5	4.3/5.0	—	1Kpcs/Bulk	20
		TVBJ12		Vertical	6.0	3.5	4.3/5.0	—	1Kpcs/Bulk	20
		TVBT16		Vertical	6.0	3.5	4.3/5.0	—	1Kpcs/Box	23
Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < C >	Surface Mount	TVCM01		Vertical	4.5	4.5	X	—	2Kpcs/Reel(H:3.8/4.3/5.0) 800pcs/Reel(H:6.0/7.0/8.0)	27
		TVCM04		Vertical	4.5	4.3	1.6	—	4Kpcs/Reel	28
		TVCM09		Low-Profile	4.5	4.5	0.55	—	5Kpcs/Reel	29
		TVCU11		Low-Profile	5.2	5.2	0.9	●	4Kpcs/Reel	30
		TVCU12		Low-Profile	5.2	5.2	0.8	—	5Kpcs/Reel	30
		TVCU13		Low-Profile	4.8	4.8	0.55	—	5Kpcs/Reel	31
		TVCM15		Low-Profile	5.2	5.2	1.0	—	4Kpcs/Reel	32
		TVCM16		Dust-proof	5.2	5.2	X	—	4Kpcs/Reel	33
		TVCM17		Dust-proof	5.2	5.2	X	—	4Kpcs/Reel	33
		TVCU18		Dust-proof	5.2	5.2	X	●	4Kpcs/Reel	34
		TVCF19		Dust-proof	5.2	5.2	X	●	4Kpcs/Reel	34

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Tact Switch < C >	Snap-in	TVCP02		Vertical	4.5	4.5	X	—	1Kpcs/Bulk	27
		THCP03		Horizontal	4.5	4.5	X	●	1Kpcs/Bulk	27
Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < D >	Surface Mount	THDM03		Horizontal	6.0	6.0	7.4	●	500pcs/Reel	36
		TVDM04		Vertical	6.0	6.0	X	●	1Kpcs/Reel(H:4.3/6.0) 700pcs/Reel(H:6.5/8.0) 500pcs/Reel(H:8.5/10.0)	37
		TVDM04-G73		Vertical	6.0	6.0	7.3	●	700pcs/Reel	37
		TVDM25		Vertical	6.0	6.0	X	●	1Kpcs/Reel(H:4.3/6.0) 700pcs/Reel(H:6.5/8.0) 500pcs/Reel(H:8.5/10.0)	37
		THDM13		Horizontal	7.1	5.0	7.5	●	500pcs/Reel	41
		TVDU21		Long-Travel	6.0	6.0	5.0	—	1Kpcs/Reel	46
	Snap-in	TVDP01		Vertical	6.0	6.0	X	●	1Kpcs/Bulk	35
		TVDP02		Vertical	6.0	6.0	X	●	1Kpcs/Bulk	35
		TVDP01-G73		Vertical	6.0	6.0	7.3	●	1Kpcs/Bulk	35
		TVDJ06		Vertical	6.0	6.0	X	●	1Kpcs/Bulk	38
		THDP07		Horizontal	6.0	6.0	X	●	1Kpcs/Bulk	38
		THDP19		Horizontal	6.0	6.0	X	●	1Kpcs/Bulk	38
		THDP08		Horizontal	7.5	6.55	7.1	—	1Kpcs/Bulk	39
		THDP09		Horizontal	7.5	6.55	7.1	—	1Kpcs/Bulk	39
		THDP10		Horizontal	7.5	6.55	7.1	—	1Kpcs/Bulk	39
		THDP11		Horizontal	7.5	6.55	7.1	—	1Kpcs/Bulk	40
		THDP12		Horizontal	6.2	6.2	11.25	—	500pcs/Bulk	40
		THDT14		Horizontal	7.4	9.25	7.1	—	700pcs/Box	42
		TVDT17		Vertical	6.0	6.0	X	—	2kpcs/Box	42
		TVDT18		Circle	ϕ6		4.3/5.0	—	1kpcs/Box	44
		THDP24		Two-Key	7.3	8.0	9.65	—	500pcs/Bulk	45

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Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < E >	Surface Mount	TVEU01		Vertical	6.2	6.2	2.0/2.5/3.1	●	1.5Kpcs/Reel	47
		TVEF02		Vertical	6.2	6.2	2.0/2.5/3.1	●	1.5Kpcs/Reel	47
		TVEM04		Dust-proof	6.2	6.2	3.1/5.0	●	1.5Kpcs/Reel	48
		TVEM05-E		Vertical	6.2	6.2	2.5/3.1/3.4	●	1.5Kpcs/Reel	49
		TVEJ10		Middle-Travel	6.2	6.2	3.5	—	1.5Kpcs/Reel	51
		TVEM11		Middle-Travel	6.2	6.2	3.5	—	1.5Kpcs/Reel	51
	Snap-in	TVEP07		Vertical	6.2	6.2	2.5/3.1/3.4	●	1Kpcs/Bulk	50
		TVEJ08		Vertical	6.2	6.2	2.5/3.1/3.4	●	1Kpcs/Bulk	50

Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < G >	Surface Mount	TVGM03		Vertical	12.0	12.0	X	●	900pcs/Reel(H:4.3/5.0) 600pcs/Reel(H:6.0) 500pcs/Reel(H:7.0/7.3)	54
	Snap-in	TVGP01		Vertical	12.0	12.0	X	●	500pcs/Bulk	53
		TVGP01-□G73		Vertical	12.0	12.0	7.3	●	500pcs/Bulk	53
		TVGP01-A		Vertical	12.0	12.0	X	●	500pcs/Bulk	53

Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Tact Switch < J >	Surface Mount	TVEJ12-□031		Washable	6.2	6.2	3.1	—	1.5Kpcs/Reel	52
		TVEJ12-□052		Washable	6.2	6.2	5.0	—	1.5Kpcs/Reel	52
		TVEJ12-□023		Washable	6.2	6.2	2.3	—	1.5Kpcs/Reel	52
		TVJM17		Washable	6.2	6.2	X	—	1Kpcs/Reel(H:4.3/6.0) 700pcs/Reel(H:6.5/8.0) 500pcs/Reel(H:8.5/10.0)	56
	Snap-in	TVJP13		Washable	6.2	6.2	X	—	1Kpcs/Bulk	55
		TVJP16		Washable	6.2	6.2	8.0~13.0	—	500pcs/Bulk	55
		TVJP14		Washable	8.0	8.0	6.5~13.0	—	1Kpcs/Bulk	57
		TVJP12-N		Washable	10.0	10.0	33.6	—	200pcs/Bulk	58
		TVJP12-E		Washable	10.0	10.0	33.6	●	200pcs/Bulk	58
		TVJP11		Washable	10.0	10.0	13/23.2	—	500pcs/Bulk	59
		TVJP09		Washable	10.0	10.0	5.0	—	500pcs/Bulk	60

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Tact Switch < J >	Snap-in	TVJP07		Washable	ϕ10		13.0	—	1Kpcs/Box	61
		TVJP08		Washable	8.0	8.0	13.0	—	1Kpcs/Box	61
		TVJP15		Washable	12.0	12.0	6.5~12.0	—	500pcs/Bulk	62
Item	Type	Series		Features	Dimensions(mm) W	D	H	Earth Terminal	Package	Page
Multi-Function Switch < H >	Multiway	TMHF07		Double Action	6.5	6.2	2.0/3.8	—	1Kpcs/Reel	64
		TMHU12		4-direction& center-push	6.5	6.1	5.0	●	1Kpcs/Reel	65
		TMHU13		4-direction& center-push	7.5	7.5	5.0	●	1Kpcs/Reel	66
		TMHM14		4-direction& center-push	10.4	10.0	5.0	●	1Kpcs/Reel	67
		TMHM16		4-direction& center-push	10.7	10.0	6.50	●	650pcs/Reel	68
		TMHU26		Push&Lever	11.8	11.7	2.5	—	1Kpcs/Reel	69
		TMHU27		Push&Lever	12.0	11.8	2.5	—	1Kpcs/Reel	69
		TMHU28		Push&Lever	11.8	11.3	3.0	—	1Kpcs/Reel	70
		TMHU29		Push&Lever	11.8	11.4	3.0	—	1Kpcs/Reel	70
		TMHU32		Push&Lever	9.5	8.15	2.2	—	1.5Kpcs/Reel	71
		TMHU33		Push&Lever	9.5	8.8	2.2	—	1.5Kpcs/Reel	71
Item	Type	Series		Features	Dimensions(mm) W	D	H	Self-Lock	Package	Page
Light Switch < I >	Surface Mount	LS616		illuminated	6.0	6.0	7.2	—	100pcs/Tray	79
		LS617		illuminated	7.5	7.5	11.50	—	100pcs/Tray	80
	Snap-in	LS601		illuminated	6.0	6.0	7.0/7.2	—	200pcs/Tray	73
		LS602		illuminated	7.5	7.5	8.2	—	150pcs/Tray	73
		LS603		illuminated	7.5	7.5	8.2	—	150pcs/Tray	74
		LS604		illuminated	10.0	10.0	8.5	—	150pcs/Tray	74
		LS605		illuminated	6.0	6.0	8.5	—	200pcs/Tray	75
		LS606		illuminated	7.5	7.5	9.6	—	150pcs/Tray	75
		LS609		illuminated	10	10.0	9.7	—	150pcs/Tray	76
		LS610		illuminated	ϕ10.0		9.4	—	150pcs/Tray	76
		LS611		illuminated	6.0	6.0	7.0	—	200pcs/Tray	77
		LS613		illuminated	10.0	10.0	10.0	—	150pcs/Tray	78
		LS614		illuminated	10.0	10.0	10.0	—	150pcs/Tray	78
		LS615		illuminated	10.0	10.0	8.15	—	100pcs/Tray	79

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		LS619		illuminated	6.0	6.0	9.1	—	100pcs/Tray	81
		LS620		illuminated	6.0	6.0	8.9	—	100pcs/Tray	81
		LS621		illuminated	6.0	6.0	8.9	—	100pcs/Tray	82
		LS622		illuminated	7.5	7.5	9.75	—	100pcs/Tray	82
		LS623		illuminated	9.9	9.9	8.8	—	100pcs/Tray	83
		LS624		illuminated	ϕ10.0		9.65	—	100pcs/Tray	83
		LS625		illuminated	9.95	9.95	9.60	—	100pcs/Tray	84
		LS626		illuminated	9.95	9.95	9.60	—	100pcs/Tray	84
		LS627		illuminated	12.5	12.5	9.85	—	100pcs/Tray	85
		LS628		illuminated	12.5	12.5	9.85	—	100pcs/Tray	85
		LS629		illuminated	8.3	8.6	10.7	—	100pcs/Tray	86
		LS630		illuminated	8.3	8.6	10.7	—	100pcs/Tray	86
		LS631		illuminated	8.3	8.6	10.7	—	100pcs/Tray	87
		LS8501		illuminated	8.5	7.5	10.1	●	100pcs/Tray	88
		LS8502		illuminated	8.5	7.5	11.5	●	100pcs/Tray	88
		LS8503		illuminated	10.0	10.0	12.5	●	100pcs/Tray	89
		LS8504		illuminated	8.9	9.0	12.85	●	100pcs/Tray	89
		LS8505		illuminated	8.9	9.0	12.85	●	100pcs/Tray	90
		LS8506		illuminated	12.6	12.6	12.75	●	100pcs/Tray	90
		LS8507		illuminated	ϕ12.6		12.70	●	100pcs/Tray	91
		LS8508		illuminated	12.6	12.6	12.75	●	100pcs/Tray	91
		LS8509		illuminated	ϕ12.6		12.75	●	100pcs/Tray	92
		LS8510		illuminated	ϕ12.6		12.75	●	100pcs/Tray	92
		LS8511		illuminated	8.5	8.5	11.2	—	200pcs/Tray	93
		LS8512		illuminated	8.5	8.5	14.0	—	100pcs/Tray	93
		LS1001		illuminated	10.0	10.0	10.7	—	100pcs/Tray	94
		LS1002		illuminated	10.0	10.0	10.7	—	100pcs/Tray	94
		LS1003		illuminated	10.0	10.0	15.2	—	100pcs/Tray	95

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		LS1005		illuminated	15.1	15.1	12.0	●	50pcs/Tray	96
		LS1006		illuminated	10.0	10.0	15.3	—	100pcs/Tray	96
		LS1201		illuminated	12.0	12.0	7.3	—	100pcs/Tray	97
		LS1202		illuminated	12.0	12.0	8.0	—	100pcs/Tray	98
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Push Switch	Surface Mount	PS8004		Self-Lock	8.0	8.0	13.6	●	1Kpcs/Bulk	102
		PS8007		Self-Lock	8.0	8.0	13.6	●	1Kpcs/Bulk	102
	Snap-in	PS5801		Self-Lock	5.8	5.8	10.0	●	1Kpcs/Bulk	100
		PS5804		Self-Lock	5.8	5.8	10.0	●	1Kpcs/Bulk	100
		PS5807		Self-Lock	5.8	5.8	7.35	●	1Kpcs/Bulk	100
		PS7001		Self-Lock	7.0	7.0	12.7	●	1Kpcs/Bulk	101
		PS7004		Self-Lock	7.0	7.0	9.7	●	1Kpcs/Bulk	101
		PS8001		Self-Lock	8.0	8.0	13.6	●	1Kpcs/Bulk	102
		PS84501		Self-Lock	8.45	8.45	14.0	●	1Kpcs/Bulk	103
		PS84504		Self-Lock	8.45	8.45	13.95	●	1Kpcs/Bulk	103
		PS84507		Self-Lock	8.45	8.45	14.0	●	1Kpcs/Bulk	103
		PS8501		Self-Lock	8.5	8.5	13.95	●	1Kpcs/Bulk	104
		PS8504		Self-Lock	8.5	8.5	14.0	●	1Kpcs/Bulk	104
		PS8507		Self-Lock	8.5	8.5	14.15	●	1Kpcs/Bulk	104
		PS8510		Self-Lock	8.5	8.5	14.20	●	1Kpcs/Bulk	105
		PS8513		Self-Lock	8.5	8.5	13.95	●	1Kpcs/Bulk	105
		PS8516		Self-Lock	8.5	8.5	14.20	●	1Kpcs/Bulk	105
		PV8519		Self-Lock	13.0	8.5	14.20	●	1Kpcs/Bulk	106
		PS12301		Self-Lock	12.3	11.0	19.0	●	1Kpcs/Bulk	107
		PS12303		Self-Lock	12.3	11.0	19.0	●	1Kpcs/Bulk	107
		PS12305		Self-Lock	12.3	11.0	24.4	●	1Kpcs/Bulk	107

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		R7M3		Rotary	7.2	7.2	0/3.0	●	63pcs/Tube	115
	Snap-in	RH-16		Rotary	10.0	10.0	6.85	●	50pcs/Tube	109
		RH-10		Rotary	10.0	10.0	6.85	●	50pcs/Tube	109
		RHL-16		Rotary	10.0	10.0	13.75	●	50pcs/Tube	110
		RHL-10		Rotary	10.0	10.0	13.75	●	50pcs/Tube	110
		RR3-4		Rotary	9.8	6.74	9.9	●	48pcs/Tube	111
		RH2		Rotary	9.8	6.64	9.9	●	48pcs/Tube	112
		RM3		Rotary	9.8	9.9	4.5	●	48pcs/Tube	113
		RR4		Rotary	9.8	9.8	4.5	●	48pcs/Tube	113
		R7S2		Rotary	7.4	7.3	0/3.0	●	62pcs/Tube	114
		R7R4		Rotary	7.2	7.9	7.77	●	60pcs/Tube	116
		R7H3		Rotary	7.2	7.2	0/3.0	●	63pcs/Tube	116

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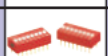
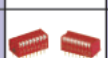
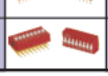
		DHM		Half-Pitch	X	4.5	1.5	●		118
		DEM		End Stackable	X	6.0	3.4	●		119
		DEH		End Stackable	X	6.0	2.8	●		120
		DAH(S)		Auto Inserting	X	6.2	3.6	●		121
		DAM		Auto Inserting	X	6.2	3.0	●		122
		DAF		Auto Inserting	X	6.2	3.0	●		123
		DPS		New Piano	X	6.0	5.0	●		124
		DPM		New Piano	X	6.0	5.0	●		125
		PEH		End Stackable Piano	X	6.0	5.0	●		126
		PEM		End Stackable Piano	X	6.0	5.0	●		127
		DS		Silde	X	9.9	7.1	●		128
		DP		Piano	X	10.8	10.3	●		129
		DR		Right Angle	X	9.9	9.9	●		130

InterElcom

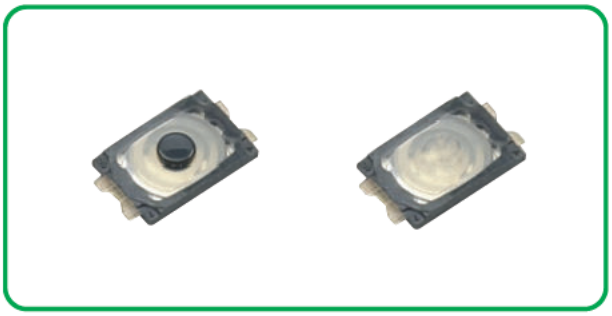
01 TACT SWITCH SERIES

Features:

- Microminiature, light operating.
- Good feeling and long life.
- Snap-in type, can be mounted directly on P.C. Board and good for electrostatic discharge.
- It has a lot of chices for button shape, height and it is easily to install all kind of product.

Applications:

They can operate all types of electronic equipment such as the telephone, PDA, DVD, digital camera, audio equipment, instrument and meter equipment, autoimmunization equipments control etc.



HOW TO ORDER

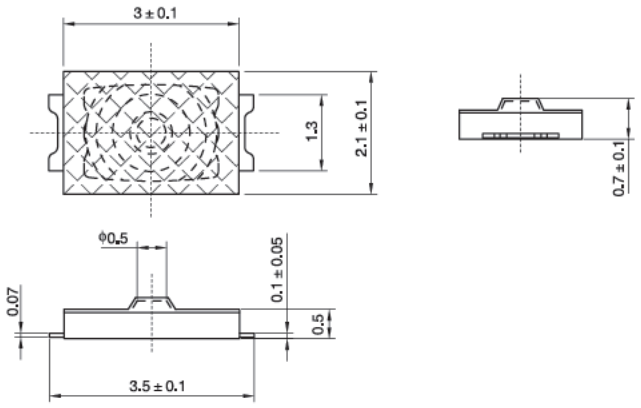
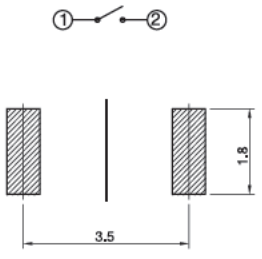
T V A U 2 5 [ ] [ ] [ ]

- Attach Characteristics: H=With stem, N=Non stem
- Operating Force: J=160gf, C=250gf
- Package Style: B=Bulk, R=Reel

Specification

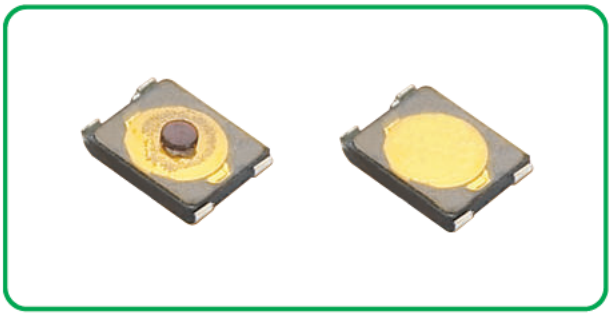
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA. 15V DC
	Insulation resistance	50MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAU25 	

MINI SERIES

2.7x3.0 Miniature Type Vertical Push Tact Switch



HOW TO ORDER

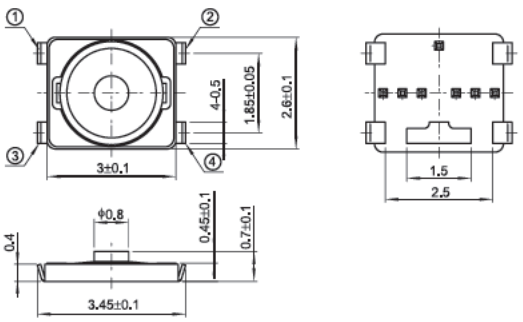
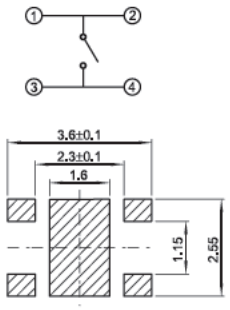
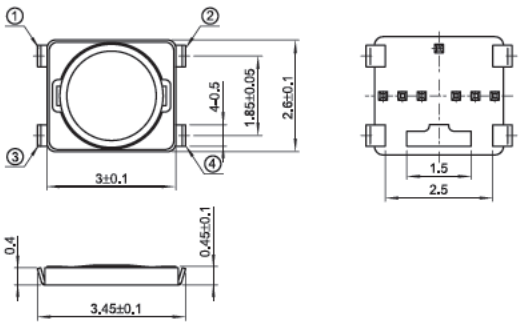
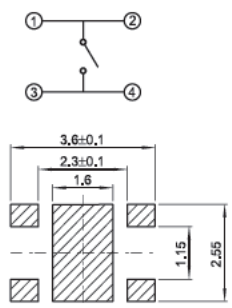
T V A U 1 9 [ ] [ ] [ ]

- Package Style: B=Bulk, R=Reel
- Operating Force: J=160gf, C=250gf
- Attach Characteristics: H=With stem, N=Non stem

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA. 12V DC
	Insulation resistance	50MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAU19-H 	
2	● TVAU19-N 	

HOW TO ORDER

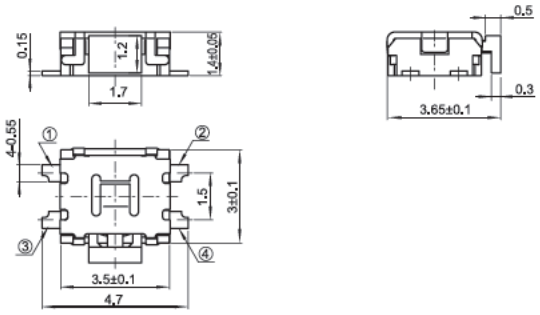
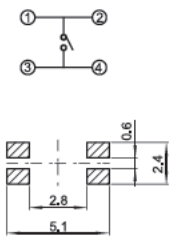
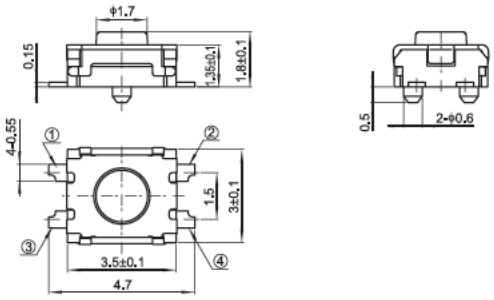
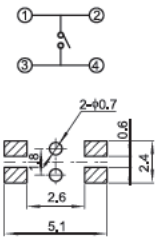
T □ A F □□ □ □□

- **Operation Direction**: H=Horizontal, V=Vertical
- **Serial Number**: 01=Horizontal, 02=Vertical
- **Attach Characteristics**: A=Base With Pilot, □=Non Pilot
- **Operating Force**: J=160gf C=250gf
- **Package Style**: B=Bulk, R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.13 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAF01 	
2	● TVAF02 	

MINI SERIES

3.3x3.3 Miniature Type Tact Switch

HOW TO ORDER

T V A F 0 3 — [ ] [ ] [ ][ ][ ] [ ] [ ] [ ]

Switch Height
015=1.5mm
020=2.0mm

Auxiliary Type	Attach Characteristics	Operating Force	Stem Color	Package Style
□ =Black Base	E=With EarthTerminal	A=90gf J=160gf	B=Black	B=Bulk
W=White Base	N=Non EarthTerminal	C=250gf	L=Lcp White	R=Reel
			Y=Yellow	

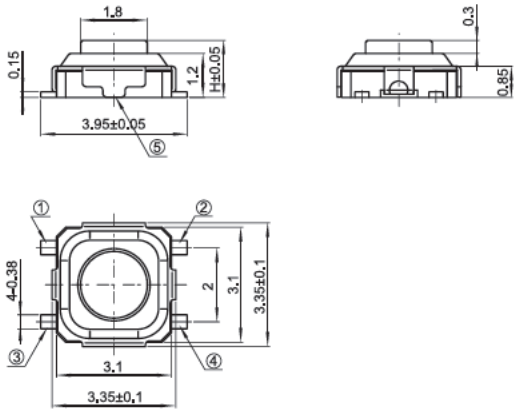
Specification

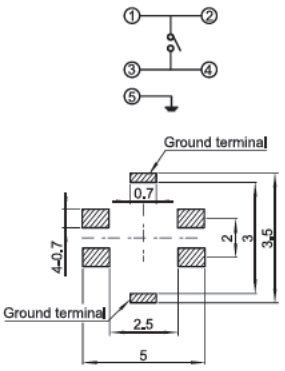
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

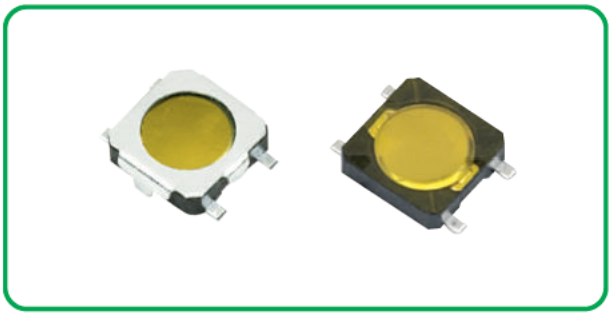
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAF03	

H
1.5
2.0







HOW TO ORDER

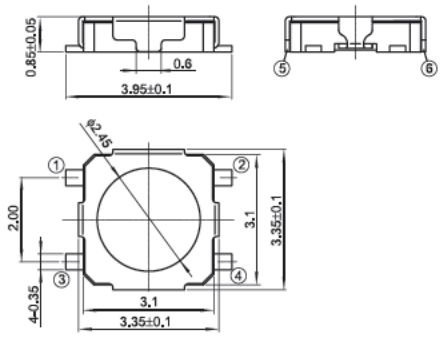
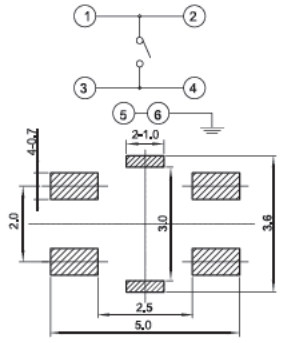
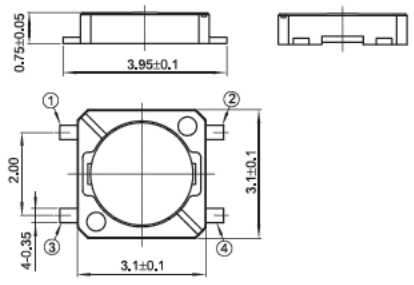
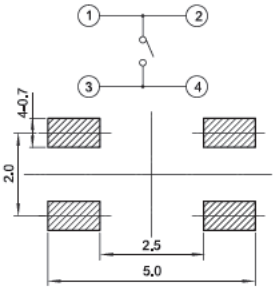
T V A F □□ □ □ □ □

- **Serial Number**: 17=With cover, 18=Non cover
- **Auxiliary Type**: □=Black Base, W=White Base
- **Attach Characteristics** (Only For TVAF17): E= With Earth Terminal, N=Non Earth Terminal
- **Operating Force**: A=90gf, J=160gf, C=250gf
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAF17 	
2	● TVAF18 	

MINI SERIES

2.3x4.6 Miniature Type Tact Switch

HOW TO ORDER

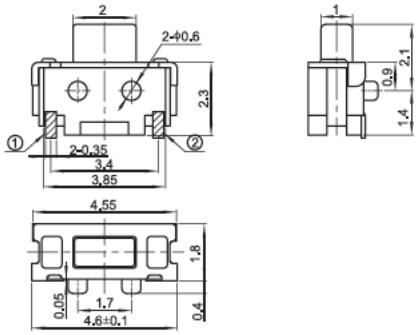
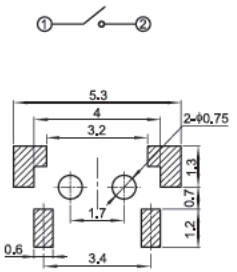
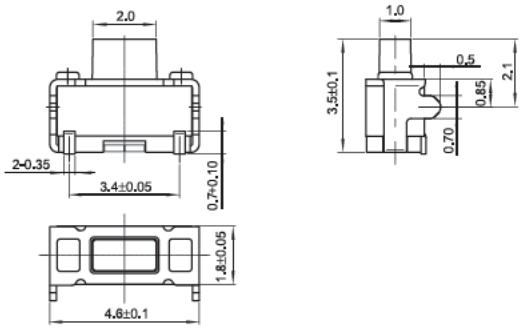
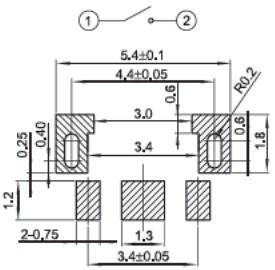
T H A M [ ][ ] [ ] [ ][ ]

- **Serial Number**
  04=Cover Without Pilot
  05=Cover With Pilot
- **Attach Characteristics**
  (Only For THAM04)
  A=Base With Pilot
  □ =Non Pilot
- **Operating Force**
  J=160gf C=250gf
  E=140gf
- **Stem Color**
  B=Black
  L=Lcp White
- **Package Style**
  B=Bulk
  R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:E:50,000 Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf E:140gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAM04 	
2	● THAM05 	

MINI SERIES

2.3x4.6 Miniature Type Tact Switch

HOW TO ORDER

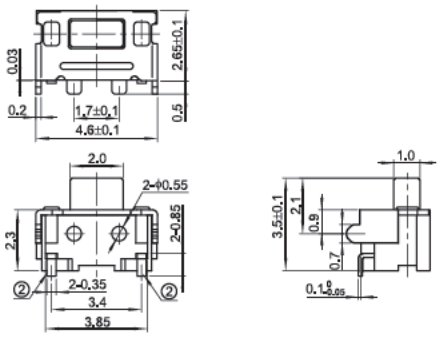
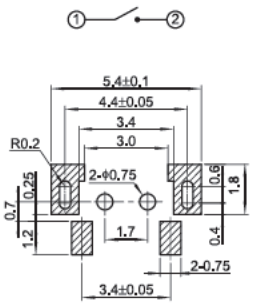
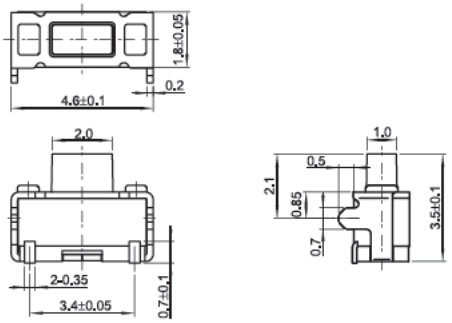
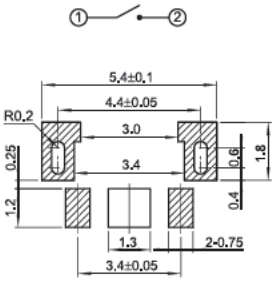
T H A M [ ] [ ] [ ] [ ] [ ]

- **Serial Number**
  15=Thickening of the base
  16=Dust-proof type
- **Attach Characteristics**
  (Only For THAM15)
  A=Cover With Pilot
  □ =Non Pilot
- **Operating Force**
  J=160gf C=250gf
  E=140gf
- **Stem Color**
  B=Black
  L=Lcp White
- **Package Style**
  B=Bulk
  R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	E:J:50,000 Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf E:140gf
	Travel	0.15 ± 0.05mm

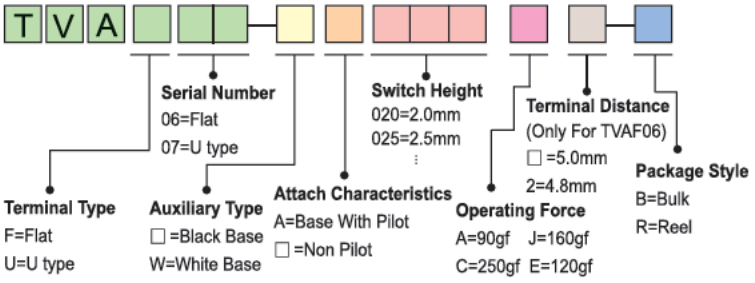
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAM15 	
2	● THAM16 	

MINI SERIES

2.9x3.9 Miniature Type Vertical Push Tact Switch

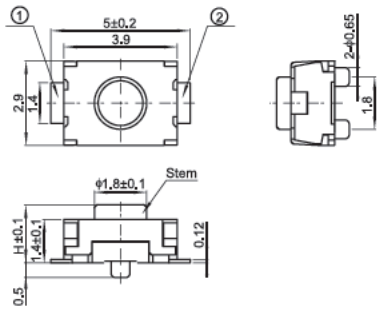
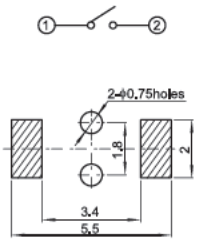
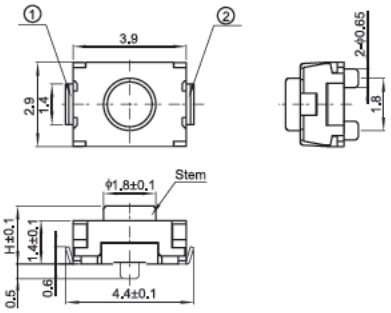
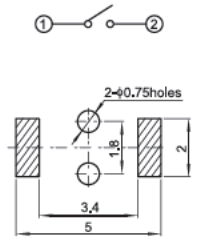
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf E:120gf
	Travel	0.13 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAF06  H: 1.5 / 2.0 / 2.5 / 3.0	
2	● TVAU07  H: 1.5 / 2.0 / 2.5 / 3.0	

HOW TO ORDER

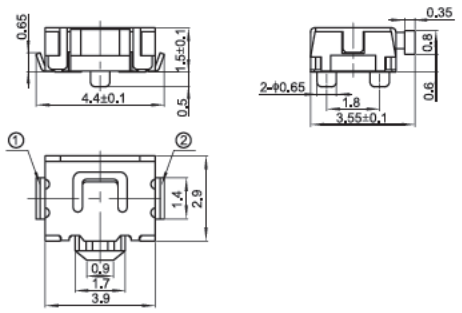
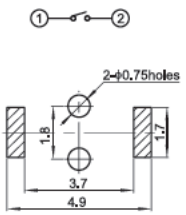
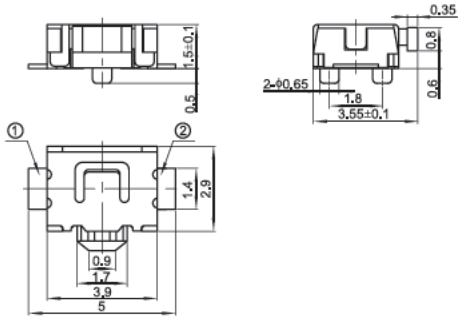
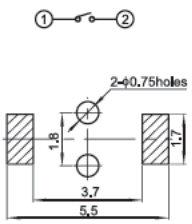
T H A □ □□ □ □ □ □ □

- **Serial Number**: 08=U type; 09=Flat
- **Terminal Type**: U=U type; F=Flat
- **Auxiliary Type**: □=Black Base; W=White Base
- **Attach Characteristics**: A=Base With Pilot; □=Non Pilot
- **Operating Force**: J=160gf C=250gf
- **Terminal Distance** (only for TVAF09): □=5.0mm 2=4.8mm
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAU08 	
2	● THAF09 	

MINI SERIES

3.2x4.2 Miniature Type Compact High Operting Force Tact Switch

HOW TO ORDER

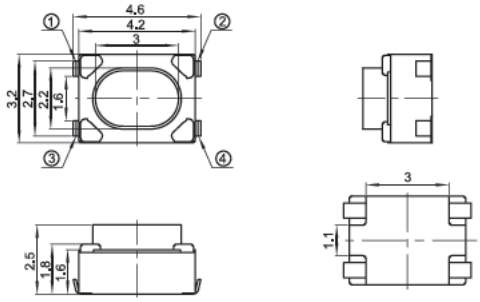
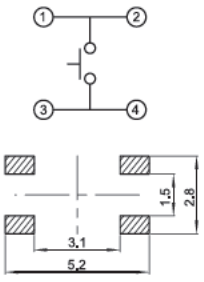
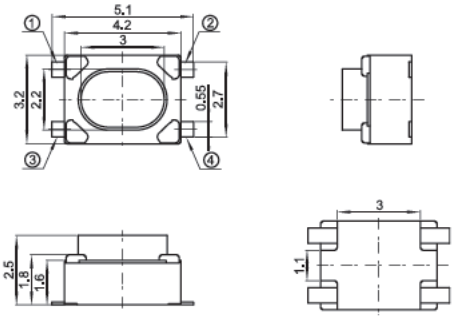
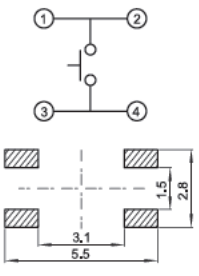
T V A ☐ ☐☐ ☐☐☐ ☐ ☐ ☐

- **Terminal Type**: U=U type, F=Flat
- **Serial Number**: 10=U type, 11=Flat
- **Switch Height**: 025=2.5mm
- **Operating Force**: J=160gf, C=250gf, H=400gf
- **Stem Color**: L=Lcp White, F=PPA White
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf H:400gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAU10 	
2	● TVAF11 	

MINI SERIES

2.56x4.5 Miniature Type Horizontal Push Tact Switch

HOW TO ORDER

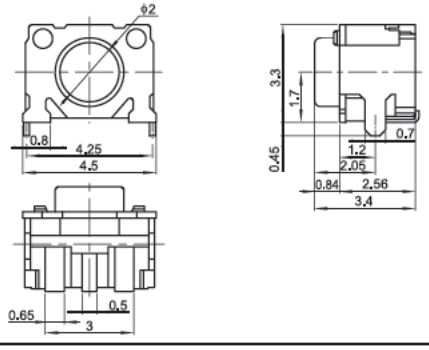
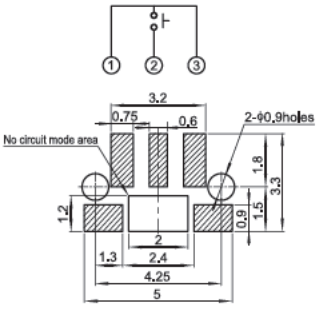
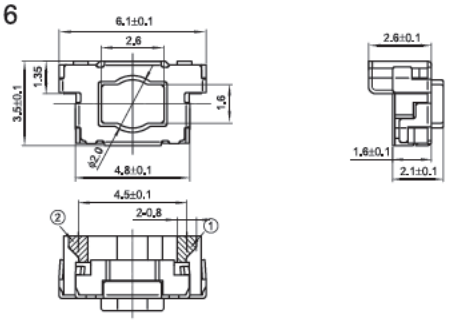
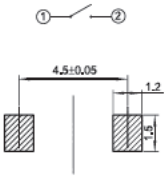
T H A M [ ][ ] [ ] [ ][ ]

- Serial Number
  - 12=2.56x4.5
  - 16=2.6x6.1
- Operating Force
  - J=160gf
  - C=250gf
- Stem Color
  - B=Black
  - W=White
  - L=Lcp White
- Package Style
  - B=Bulk
  - R=Reel

Specification

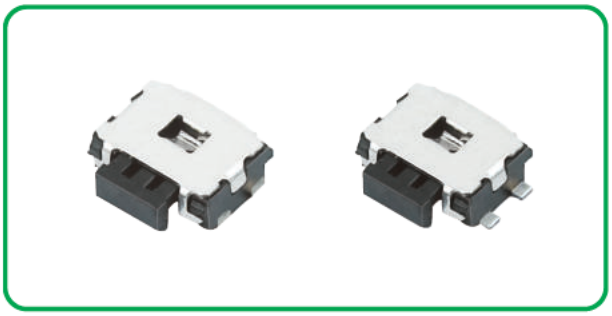
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAM12 	
2	● THAM16 	

MINI SERIES

3.5x4.7 Horizontal Push Tact Switch



HOW TO ORDER

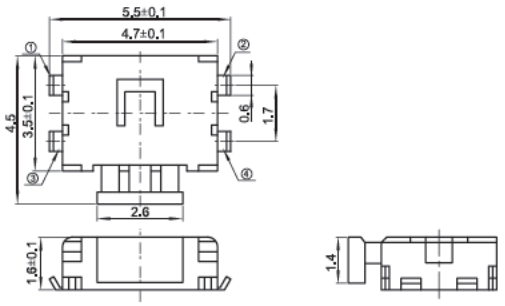
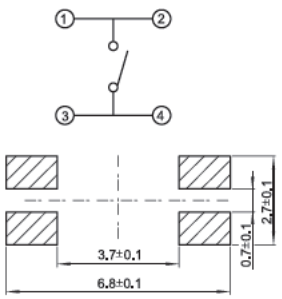
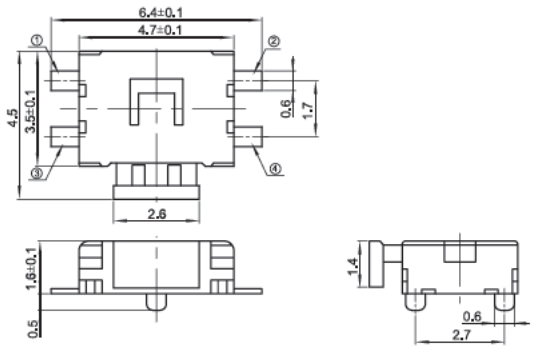
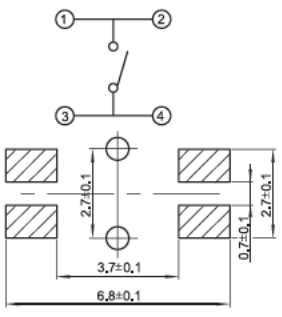
T H A [ ] [ ][ ] [ ] [ ] [ ]

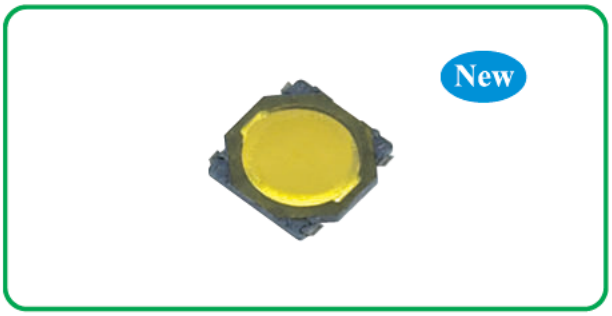
- **Terminal Type**: U=U type, F=Flat
- **Serial Number**: 13=U type, 14=Flat
- **Auxiliary Type**: G=Terminal Gold-Plating, ☐ =Terminal Silver-Plating
- **Attach Characteristics**: A=Base With Pilot, ☐ =Non Pilot
- **Operating Force**: J=160gf, C=250gf, F=210gf
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf F:210gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THAU13 	
2	● THAF14 	



HOW TO ORDER

T V A U 2 2 [ ] [ ]

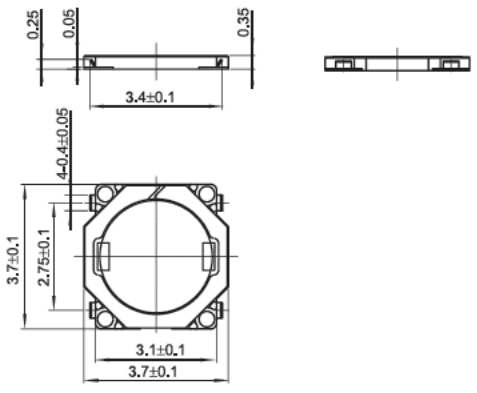
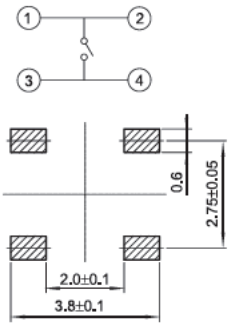
Package Style
B=Bulk
R=Reel

Operating Force
J=160gf
C=250gf
E=130gf

Specification

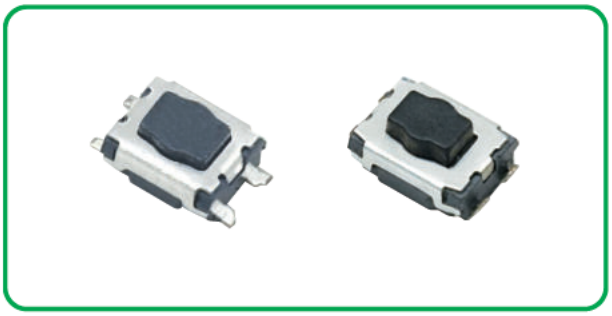
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles.
Mechanical performance	Operating force	J:180gf C:250gf E:130gf
	Travel	0.15 ± 0.05

Diagram

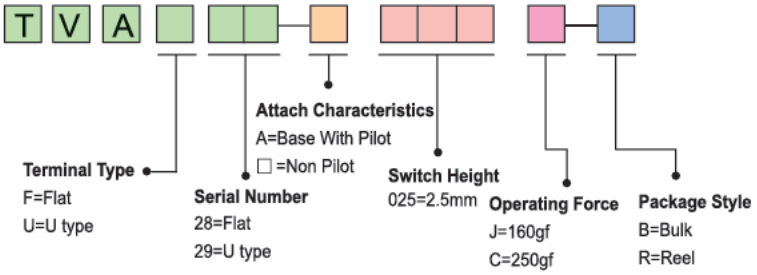
No.	Dimensions	Circuit Diagram Pad Layout
1	● TVAU22 	

MINI SERIES

3.5x4.7 Vertical Push Tact Switch



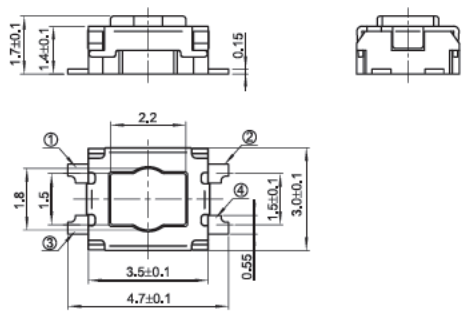
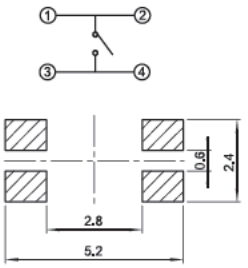
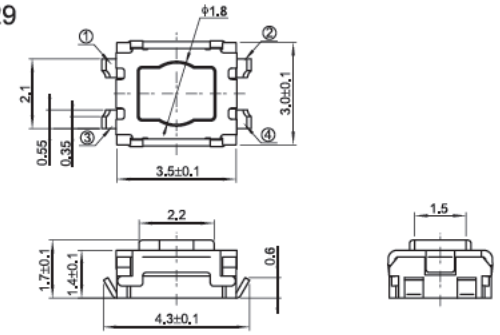
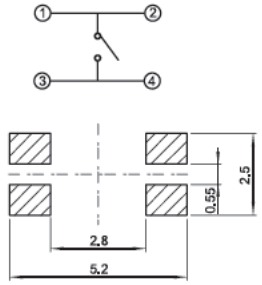
HOW TO ORDER



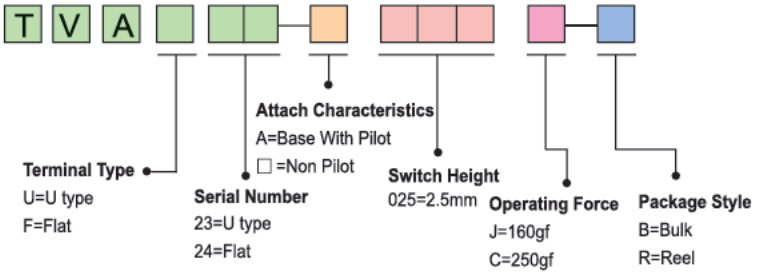
Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVAF28 	
2	● TVAU29 	

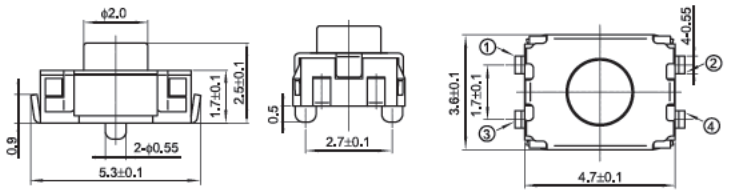
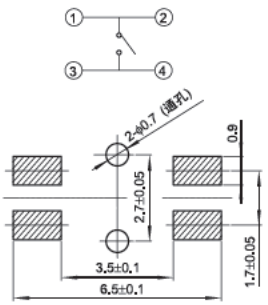
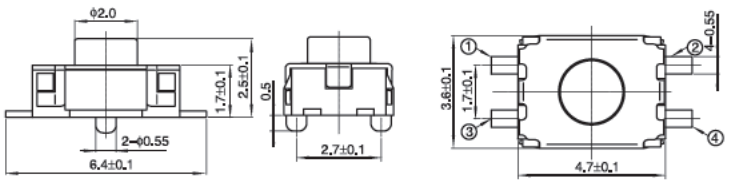
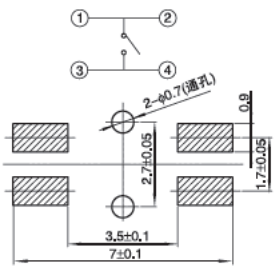
HOW TO ORDER



Specification

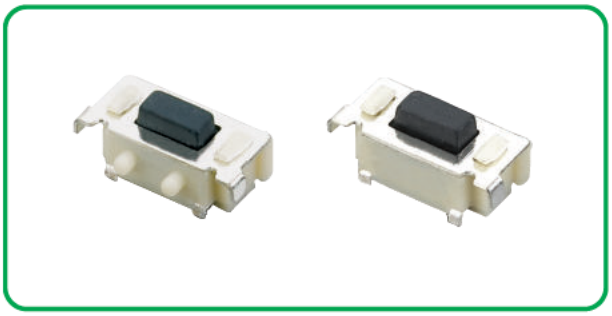
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVAU23 	
2	● TVAF24 	

3x6 SERIES

2.5x7.0 SMT & Right Angle Tact Switch



HOW TO ORDER

T H B M

Serial Number
02=Base With Pilot
03=Non Pilot

Auxiliary Type
□=Black Base
L=Lcp White Base
F=FR52 White Base

Attach Characteristics
(Only For THBM02)
A=Base With Pilot of ϕ0.8mm
B=Base With Pilot of ϕ0.6mm

Operating Force
C=250gf
D=70gf E=130gf
J=160gf G=320gf
C2=250gf(Double Contact)

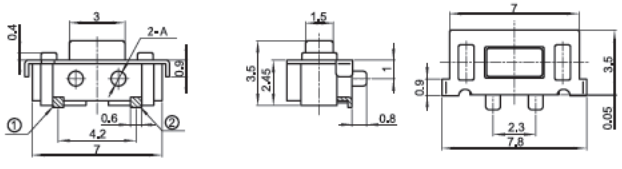
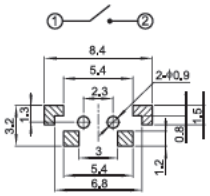
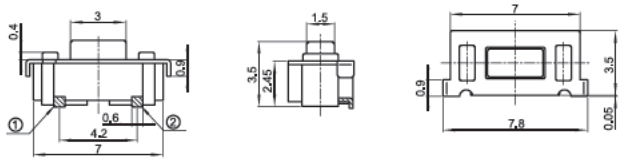
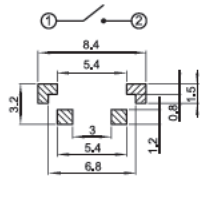
Internal Dot Mark
1=Terminal Lengthen
2=Non-Standard Height
3=Pilot Lengthen

Package Style
B=Bulk
R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:D:E:50,000Cycles C:G:30,000 Cycles
Mechanical performance	Operating force	C:250gf D:70gf E:130gf J:160gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

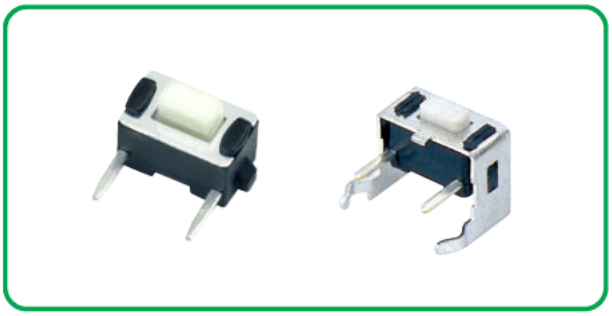
No.	Dimensions	Circuit Diagram / Pad Layout
1	● THBM02 	
2	● THBM03 	

3x6 SERIES

3.5x6.0 Horizontal Push & Bracket Shape Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T H B P [ ][ ] [ ][ ][ ] [ ] [ ]

Serial Number
04=Non Bracket
07=With Bracket

Switch Height
043=(L:3.15mm)
050=(L:3.85mm)

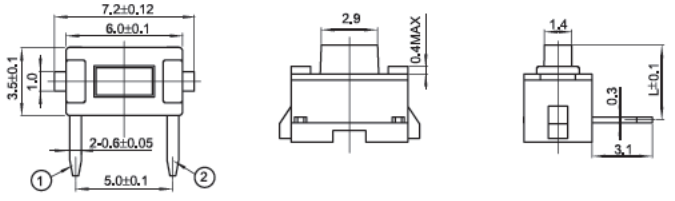
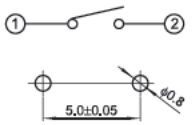
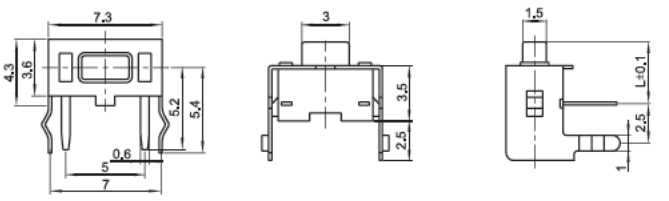
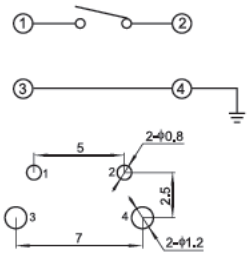
Operating Force
J=160gf
C=250gf
D=70gf
E=130gf

Stem Color
B=Black
W=White

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf D:70gf E:130gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THBP04 L: 3.15, 3.85 	
2	● THBP07 L: 3.15, 3.85 	

3x6 SERIES

4.0x6.1 Horizontal Push Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T H B M 0 5 — ☐ — ☐ — ☐

Auxiliary Type
☐=Black Base
W=White Base

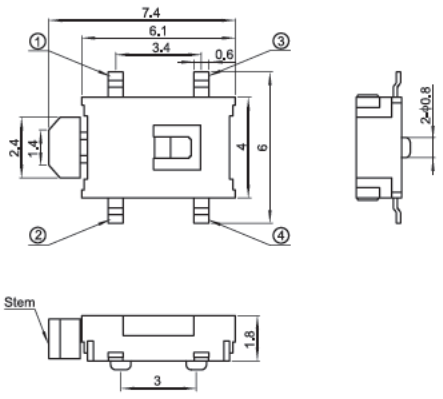
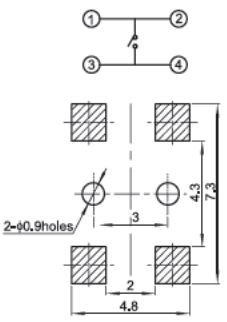
Operating Force
J=160gf
C=250gf

Package Style
B=Bulk
R=Reel

Specification

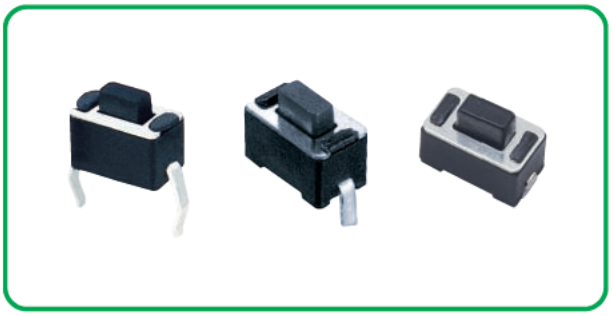
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.30 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THBM05 	

3x6 SERIES

3.5x6.0 Vertical Push Tact Switch



HOW TO ORDER

T V B [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Terminal Type
P=Through Hole
J=J Type
R=Reverse Lead

Serial Number
06=Through Hole
12=J Type
14=Reverse Lead

Auxiliary Type
□=Black Base
W=White Base
L=Lcp White Base

Attach Characteristics
A=Base With Pilot
□=Non Pilot

Switch Height
043=4.3mm
050=5.0mm

Operating Force
J=160gf C=250gf
E=130gf G=320gf
B=180gf

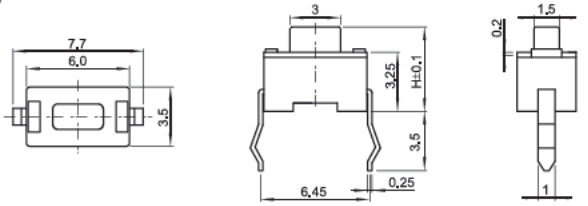
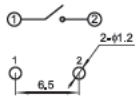
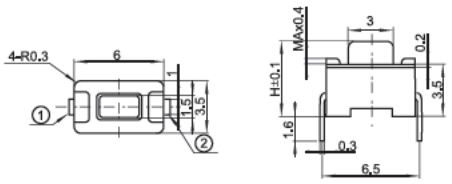
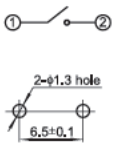
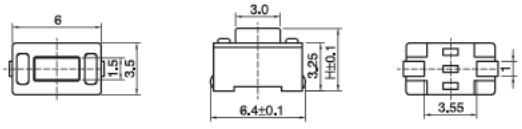
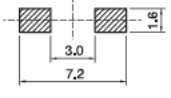
Stem Color
B=Black
W=White
L=Lcp White
R=Red

Package Style
B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf D:70gf E:130gf B=180gf
	Travel	0.25 ± 0.1mm

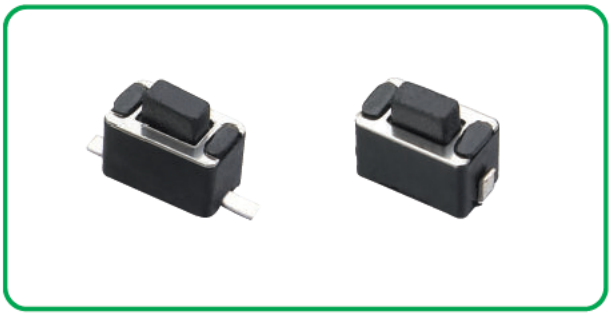
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBP06  H: 4.3, 5.0	
2	● TVBJ12  H: 4.3, 5.0	
3	● TVBR14  H: 4.3, 5.0	

3x6 SERIES

3.5x6.0 Vertical Push Tact Switch

LEAD FREE RoHS Compliant Halogen Free



HOW TO ORDER

T V B □ □□ □ □□□ □ □ □

Terminal Type
F=Flat
U=U Type

Serial Number
09=Flat
10=U Type

Auxiliary Type
□ =Black Base
L=Lcp White Base
W=White Base

Switch Height
043=4.3mm
050=5.0mm

Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf B=180gf

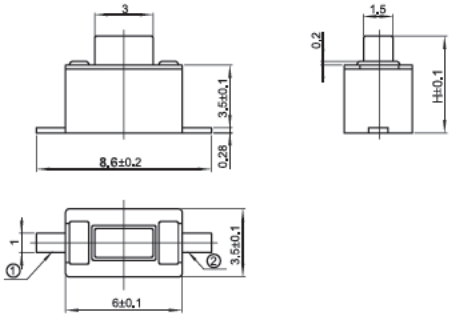
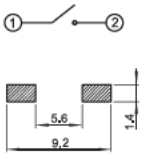
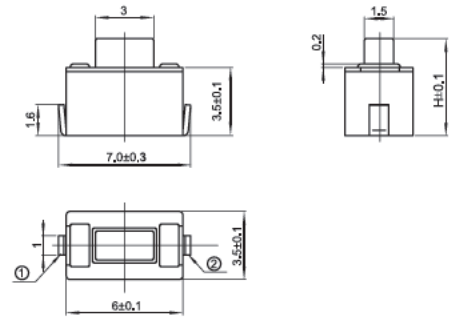
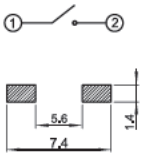
Package Style
B=Bulk
R=Reel

Stem Color
B=Black
L=Lcp White
S=Salmon
W=White

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBF09  H: 4.3 / 5.0	
2	● TVBU10  H: 4.3 / 5.0	

3x6 SERIES

3.5x6.0 SMT Type Tact Switch

HOW TO ORDER

T V B M 1 1 □ □ □□□ □ □ □ □

Auxiliary Type
□ =Black Base
W=White Base
L=Lcp White

Attach Characteristics
A=Base With Pilot
□ =Non Pilot

Switch Height
043=4.3mm
050=5.0mm

Operating Force
A=90gf J=160gf C=250gf
D=70gf E=130gf G=320gf
C2=250gf (Double Contact)
B=180gf

Stem Color
B=Black
W=White
L=Lcp White
R=Red

Terminal Distance
1=8.2mm 2=8.7mm
3=10.2mm 4=8.0mm

Package Style
B=Bulk R=Reel

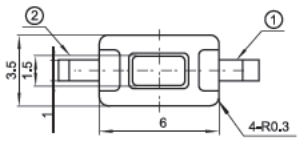
Specification

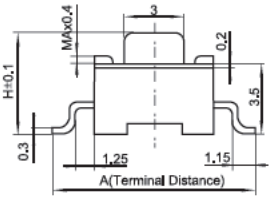
Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf B=180gf
	Travel	0.25 ± 0.1mm

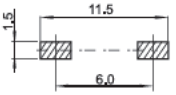
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBM11	

H	A
4.3	8.2
5.0	8.7
	10.2





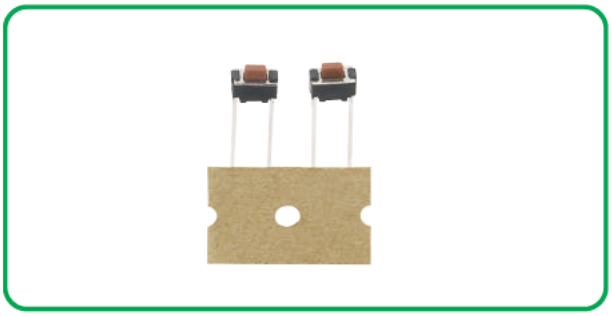


3x6 SERIES

3.5x6.0 Taping Type Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T V B T 1 6 [ ] [ ] [ ]

Switch Height
043=4.3mm
050=5.0mm

Operating Force
J=160gf
C=250gf
B=180gf

Stem Color
B=Black
W=White
R=Red
D=Dark Gray

Package Style
B=Bulk
T=Paper Tape

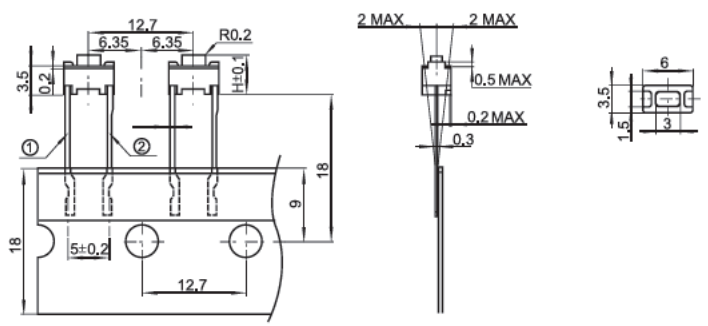
Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

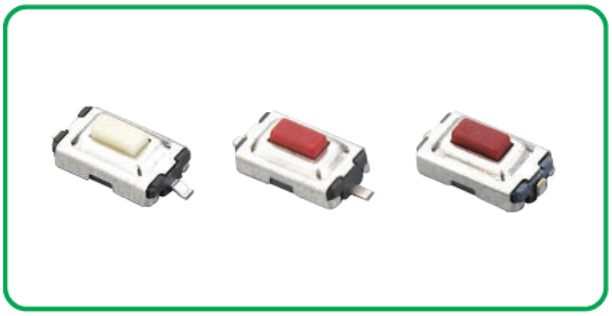
No.	Dimensions	Circuit Diagram Pad Layout
1	● TVBT16	

H
4.3
5.0



3x6 SERIES

3.7x6.1 SMT Type Tact Switch



HOW TO ORDER

T V B □ □ □ □ □ □ □ □ □ □ □ □

Terminal Type
M=S.M.T
F=Flat
U=U Type

Serial Number
17=S.M.T
18=Flat
19=U Type

Auxiliary Type
□ =Black Base
W=White Base
L=LCP Black

Attach Characteristics
□ =Dust-Proof
P=Non Dust-Proof
E=With Earth Terminal & Dust Proof

Switch Height
025=2.5mm
027=2.7mm

Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf G=320gf
C2=250gf (Double Contact)
B=180gf

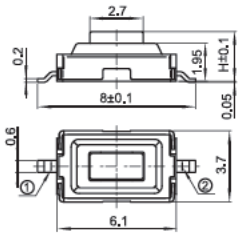
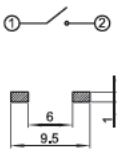
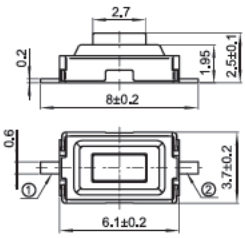
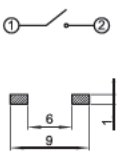
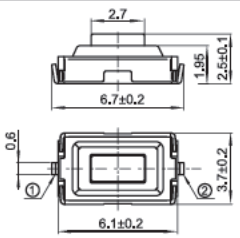
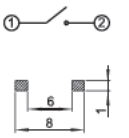
Package Style
B=Bulk R=Reel

Stem Color
L=Lcp White
F=PPA White
R=Red
D=Dark Gray
U=Blue

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBM17  H: 2.5, 2.7	
2	● TVBF18 	
3	● TVBU19 	

3x6 SERIES

3.5x6.1 Through Hole & SMT Type Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

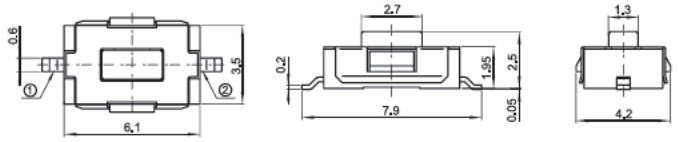
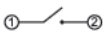
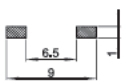
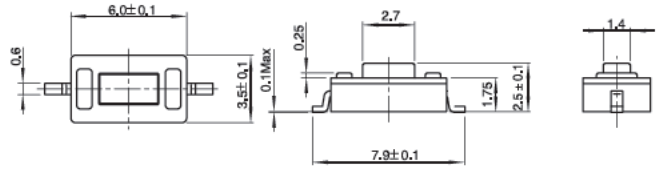
T V B M □□ □□□ □ □ □

- **Serial Number**
  - 20=Rivering Type
  - 21=Buckle Type
- **Switch Height**
  - 025=2.5mm
- **Operating Force**
  - J=160gf C=250gf
  - B=180gf
- **Stem Color**
  - W=White
  - R=Red
- **Package Style**
  - B=Bulk
  - R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBM20 	 
2	● TVBP21 	

3x6 SERIES

3.8x6.0 Normal Closed Type Tact Switch

HOW TO ORDER

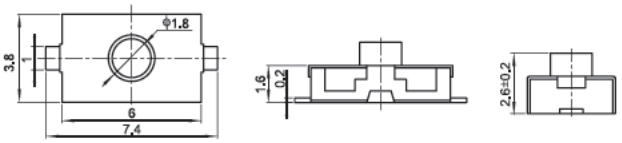
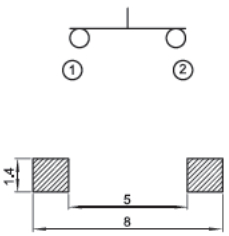
T V B F 2 2 [ ][ ][ ] [ ] [ ] [ ]

- Switch Height: 026=2.6mm
- Operating Force: J=160gf C=250gf; J2=160gf (Double Contact); C2=250gf (Double Contact)
- Stem Color: B=Black; U=Bule
- Package Style: B=Bulk; R=Reel

Specification

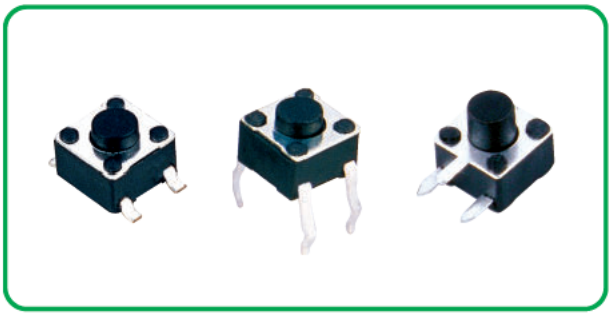
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000 Cycles C:30,000 Cycles J2:C2:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVBF22 	

4.5x4.5 SERIES

4.5x4.5 Through Hole & SMT Type Tact Switch



T □ C □ □□ □ □□□ □ □ □ □

Operation Type
H=Horizontal
V=Vertical

Terminal Type
M=S.M.T
P=Through Hole

Serial Number
01=S.M.T
02=Through Hole
03=Horizontal

Terminal Type
(Only for TVCM01)
A=6.3mm
B=7.5mm
(Only for THCP03)
N=Non Earth Terminal

Switch Height
038=3.8mm
043=4.3mm
048=4.8mm
050=5.0mm
060=6.0mm
070=7.0mm

Operating Force
J=160gf C=250gf

Stem color
B=Black
R=Red
N=Brown

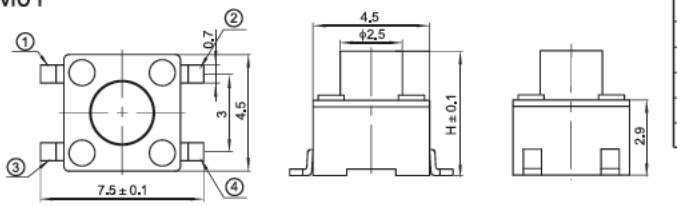
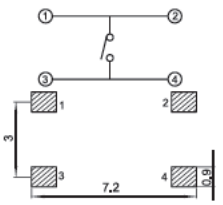
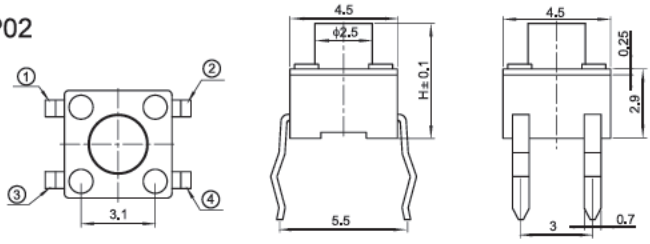
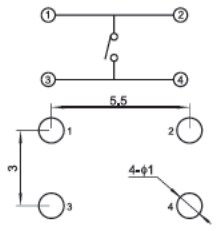
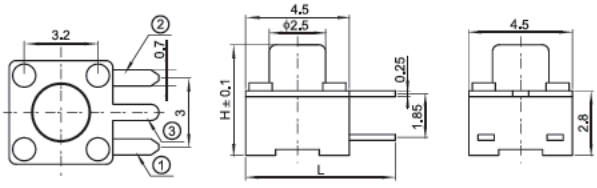
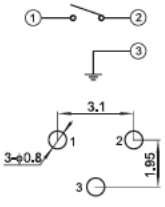
Internal Dot Mark
□ =Standard Life Time
1=High Life Time

Package Style
B=Bulk R=Reel

Specification

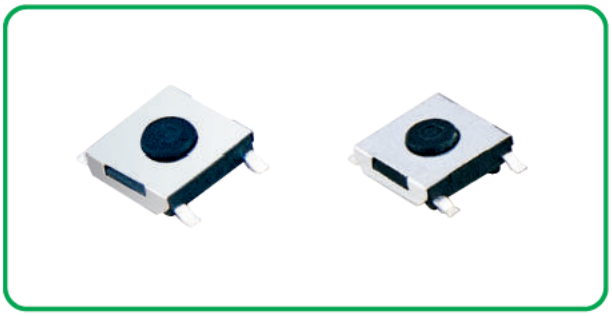
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVCM01  H: 3.8 / 4.3 / 4.8 / 5.0 / 6.0 / 7.0	
2	● TVCP02  H: 3.8 / 4.3 / 4.8 / 5.0 / 6.0 / 7.0	
3	● THCP03  L / H: 6.5 / 3.8; 7.0 / 4.3; 7.5 / 4.8; 5.0; 6.0; 7.0	

4.5x4.5 SERIES

4.3x4.5 SMT Type Tact Switch



HOW TO ORDER

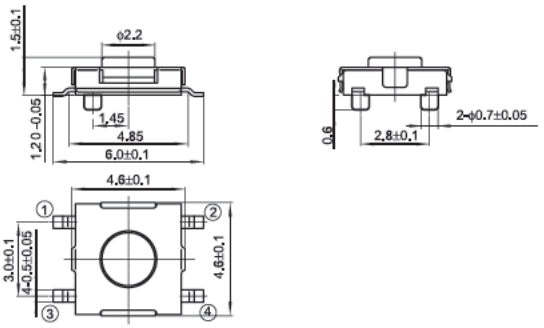
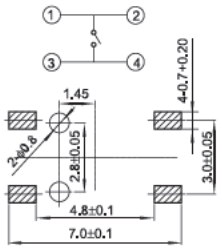
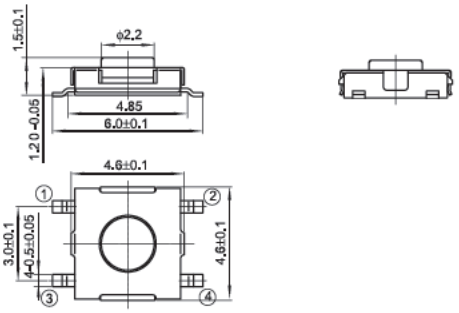
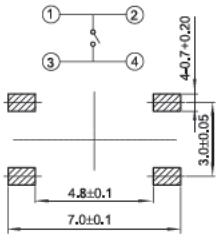
T V C M 0 4 [ ] [ ][ ][ ] [ ][ ]

- Attach Characteristics: A=Base With Pilot; □=Non Pilot
- Switch Height: 016=1.6mm
- Operating Force: J=160gf; C=250gf
- Package Style: B=Bulk; R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:300,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVCM04-A 	
2	● TVCM04-N 	

4.5x4.5 SERIES

4.5x4.5 Low-profile SMT Tact Switch

HOW TO ORDER

T V C M 0 9 [ ] [ ]

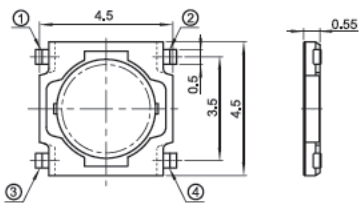
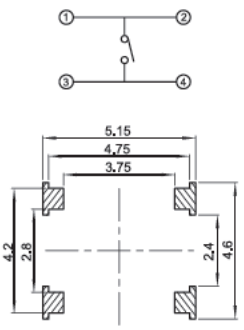
Operating Force
J=160gf
C=250gf

Package Style
B=Bulk
R=Reel

Specification

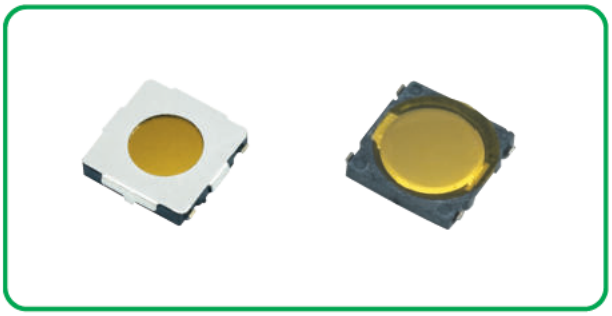
Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:200,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVCM09 	

5.2x5.2 SERIES

5.2mm Square Low-Profile Type



HOW TO ORDER

T V C U

Serial Number
11=With Cover
12=Non Cover

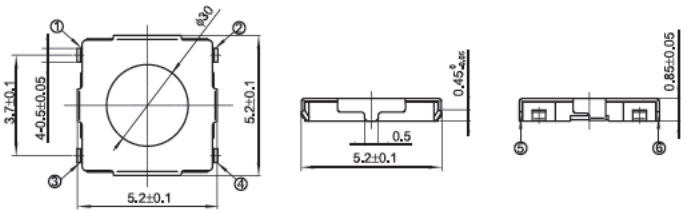
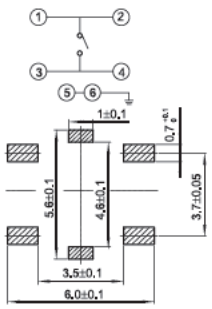
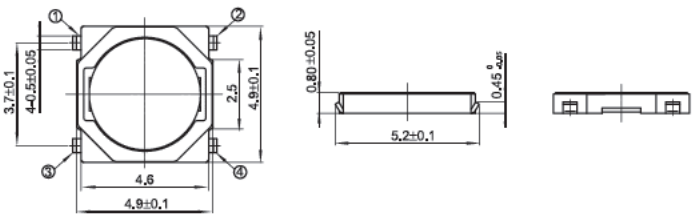
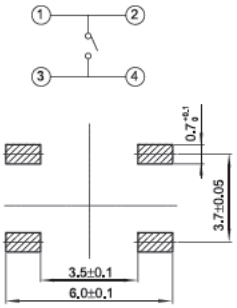
Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf G=320gf

Package Style
B=Bulk R=Reel

Specification

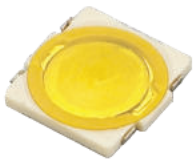
Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:D:E:F:200,000 Cycles C:G:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVCU11 	
2	● TVCU12 	

5.2x5.2 SERIES

4.8x4.8 Low-profile SMT Tact Switch



HOW TO ORDER

T V C U 1 3 [ ] [ ]

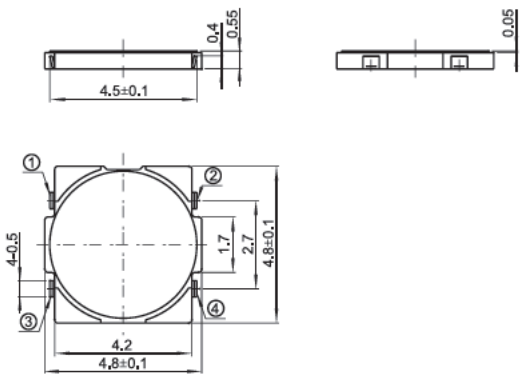
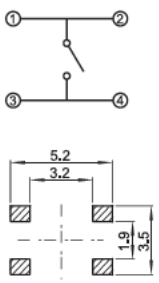
Operating Force
J=160gf
C=250gf

Package Style
B=Bulk
R=Reel

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:200,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVCU13 	

HOW TO ORDER

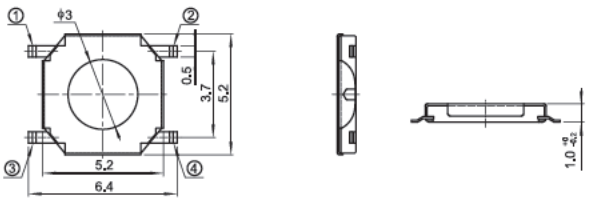
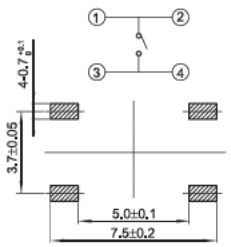
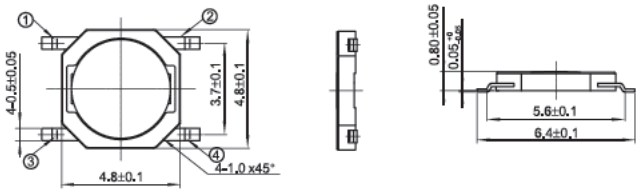
T V C M 1 5 [ ] [ ] [ ] [ ] [ ] [ ]

- **Auxiliary Type**: □=Black Base; W=White Base; L=LCP Black Base
- **Switch Height**: 010=1.0mm(With Cover); 008=0.8mm(Non Cover)
- **Operating Force**: A=90gf J=160gf; C=250gf D=70gf; E=130gf G=320gf
- **Package Style**: B=Bulk; R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	E:J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVCM15-010 	
2	● TVCM15-008 	

5.2x5.2 SERIES

5.2x5.2 SMT Tact Switch

HOW TO ORDER

T V C M

Serial Number
16=Square Cover
17=Round Cover

Auxiliary Type
□ =Black Base
W=White Base
L=Lcp Black Base

Attach Characteristics
□ =Dust-Proof
E=With Earth Terminal

Switch Height
015=1.5mm
016=1.6mm
017=1.7mm
020=2.0mm
025=2.5mm
035=3.5mm
043=4.3mm

Stem Color
L=Lcp White
F=PPA White
B=Black Y=Yellow
P=Nickel Plating

Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf G=320gf
H=400gf I=520gf

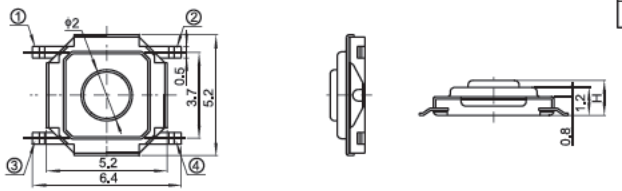
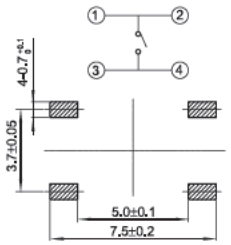
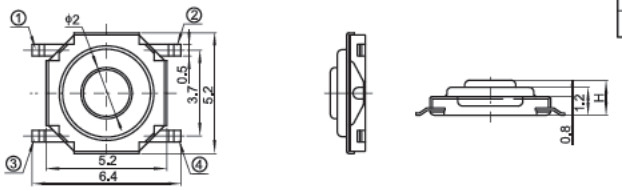
Package Style
B=Bulk R=Reel

Internal Dot Mark
□ =Standard
1=High Life Time
2=Terminal of 6.0mm

Specification

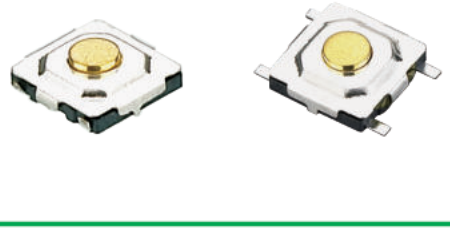
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:D:E:200,000 Cycles C::G:H:I:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf I:520gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVCM16  H: 1.5 / 1.7 / 2.0 / ...	
2	● TVCM17  H: 1.5 / 1.7 / 2.0 / ...	

5.2x5.2 SERIES

5.2x5.2 With Ground Terminal Tact Switch



HOW TO ORDER

T V C

Terminal Type
U=U Type
F=Flat

Serial Number
18=U Type
19=Flat

Switch Height
015=1.5mm
017=1.7mm
020=2.0mm
025=2.5mm
035=3.5mm
043=4.3mm

Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf G=320gf
H=400gf

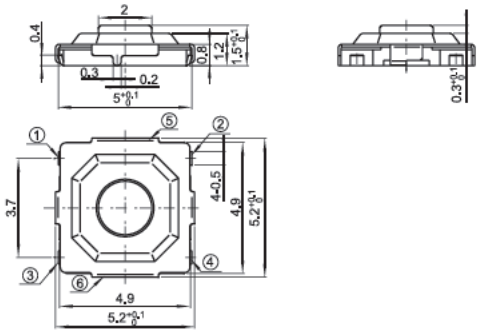
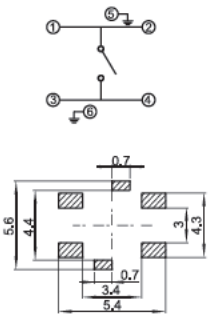
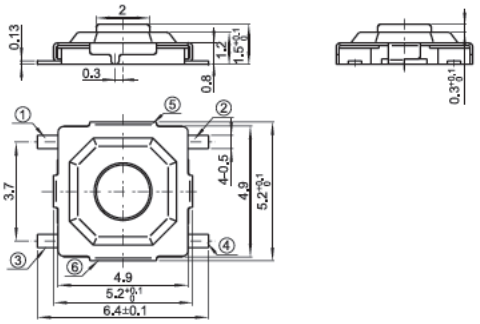
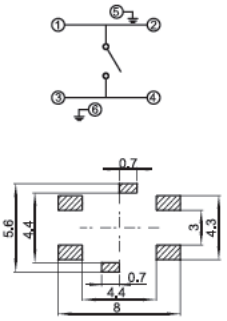
Stem Color
Y=Yellow
P=Nickel Plating

Package Style
B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:D:E:200,000 Cycles C:G:H:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf
	Travel	0.25 ± 0.1mm

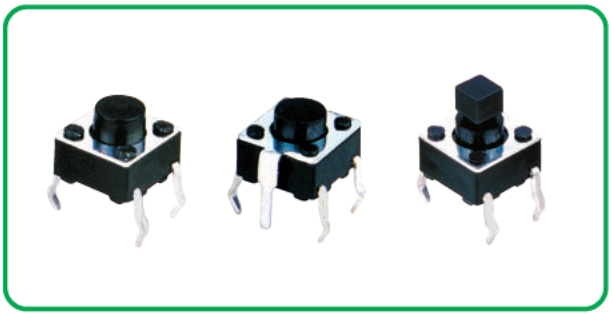
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVCU18 	
2	● TVCF19 	

6x6 SERIES

6.0x6.0 Through Hole Type Tact Switch

LEAD FREE · RoHS Compliant · Halogen Free



HOW TO ORDER

T V D P □□ □□□ □ □ □

Serial Number
01=Standard
02=With Earth Terminal

Switch Height
043=4.3mm
050=5.0mm
055=5.5mm
060=6.0mm
065=6.5mm
070=7.0mm
G73=7.3mm

Operating Force
A=90gf B=180gf
C=250gf D=70gf
E=130gf J=160gf
F=210gf G=320gf
H=400gf I=520gf

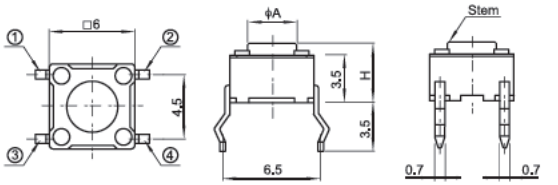
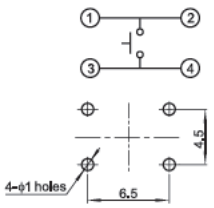
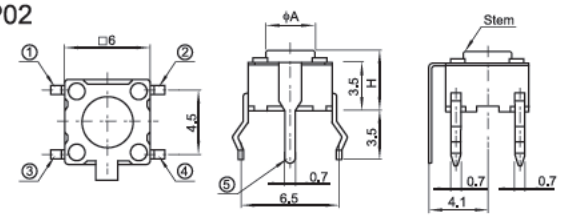
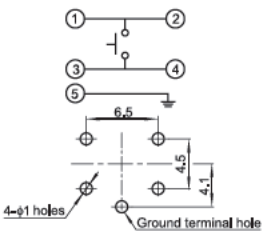
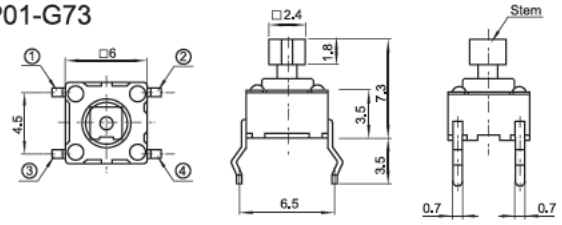
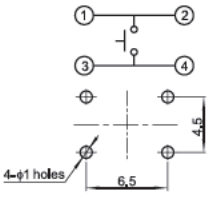
Stem Color
B=Black
W=White
R=Red
N=Brown
S=Salmon

Internal Dot Mark
□ =Standard Life time
1=High Lifetime
2=Brass Cover
3=High Lifetime & Brass Cover
4=PET Cover
5=High Lifetime & PET Cover
6=Plastic Fits UL 94V-0
7=High Lifetime & Plastic Fits UL 94V-0
8=Non-rotating Stem
9=Push No Sound

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles J:E:J:F:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf D:70gf J:160gf E:130gf J:160gf F:210gf G:320gf H:400gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVDP01 	
2	● TVDP02 	
3	● TVDP01-G73 	

H	A
4.3	3.5
5	3.5
7	3.3
9.5	3
13	3
17	3

H	A
4.3	3.5
5	3.5
7	3.3
9.5	3

6x6 SERIES

6.0x6.0 Bracket Shape Type Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

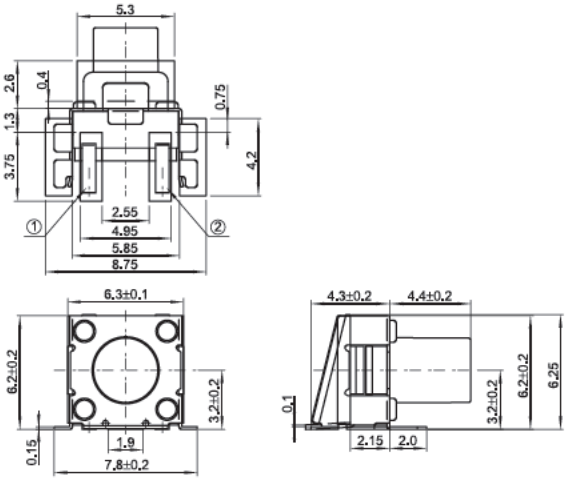
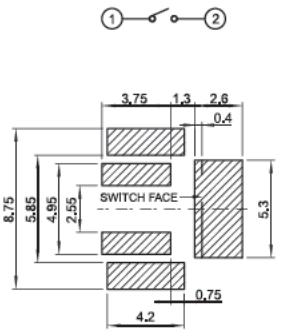
T H D M 0 3 [ ] [ ] [ ] [ ] [ ] [ ]

- Switch Height: 044=(H:4.4mm)
- Operating Force: C=250gf G=320gf H=400gf
- Stem Color: B=Black W=White R=Red
- Package Style: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	C:50,000 Cycles G:H:30,000 Cycles
Mechanical performance	Operating force	C:250gf G:320gf H:400gf
	Travel	0.30 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● THDM03 	

6x6 SERIES

6.0x6.0 Surface Mounting Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T V D M [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Terminal Type
A=8.2mm
B=9.2mm
C=10.2mm
D=8.6mm.
E=8.0mm
F=9.0mm
G=10.0mm

Switch Height
043=4.3mm
050=5.0mm
055=5.5mm
060=6.0mm
065=6.5mm
070=7.0mm
G73=7.3mm

Operating Force
A=90gf B=180gf
C=250gf D=70gf
E=130gf J=160gf
G=320gf H=400gf
I=520gf

Stem Color
B=Black
W=White
R=Red
D=Dark Gray
N=Brown
S=Salmon

Internal Dot Mark
□ =Standard Lifetime
1=High Lifetime
2=Brass Cover
3=High Lifetime & Brass Cover
4=PET Cover
5=High Lifetime & PET Cover
6=Plastic Fits UL94V-0
7=High Lifetime&Plastic Fits UL94V-0
8=Non-Fotating stem
9=Push No Sound

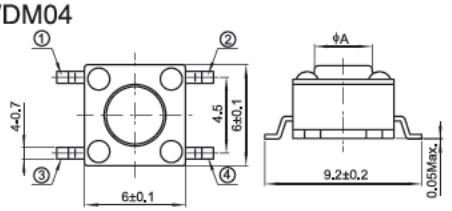
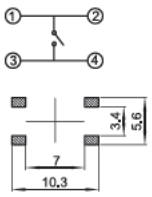
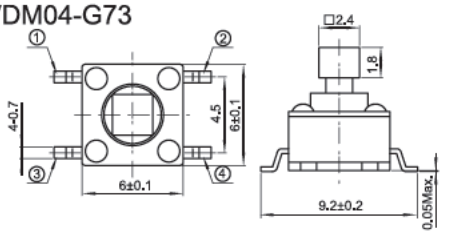
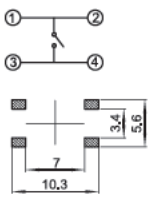
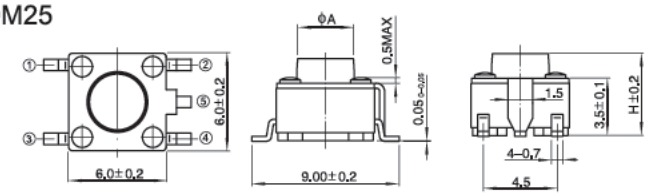
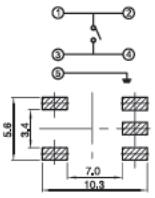
Package Style
B=Bulk R=Reel

Serial Number
04=standard
25=With Earth Terminal

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles E:J:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf I:520gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVDM04 	
2	● TVDM04-G73 	
3	● TVDM25 	

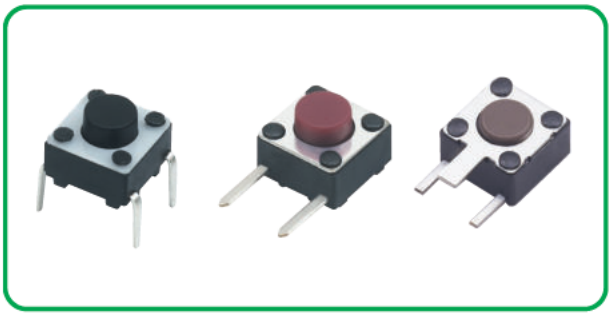
H	A
4.3	3.5
5	3.5
7	3.3
9.5	3
13	3
17	3

6x6 SERIES

6.0x6.0 Other Terminal Shape Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

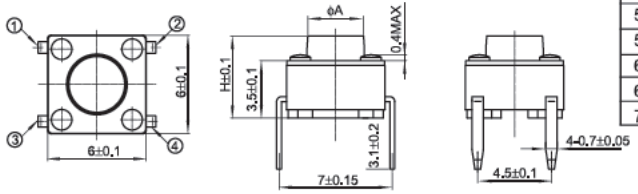
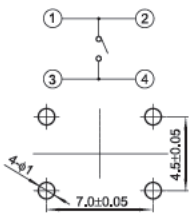
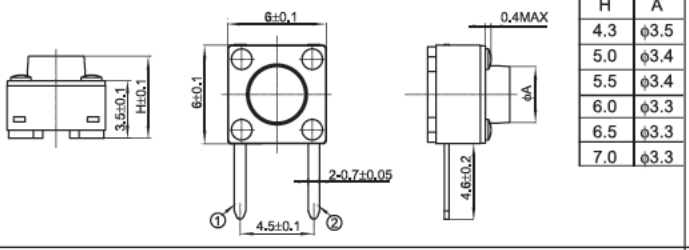
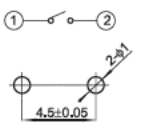
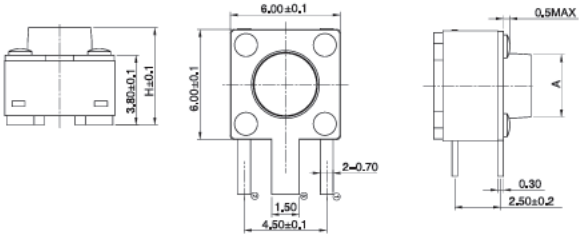
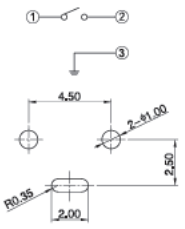
T □ D □ □□ □□□ □ □ □

- **Terminal Type**: J=J Type; P=Through Hole
- **Serial Number**: 06=J Type; 07=Through Hole; 19=With Earth Terminal
- H:Horizontal; V:Vertical
- **Switch Height**: 043=4.3mm; 050=5.0mm; 055=5.5mm; 060=6.0mm; 065=6.5mm; 070=7.0mm; G73=7.3mm
- **Operating Force**: A=90gf J=160gf; C=250gf D=70gf; E=130gf G=320gf; H=400gf
- **Stem Color**: B=Black; R=Red; N=Brown
- **Internal Dot Mark**: □=Standard Lifetime; 1=High Lifetime; 2=Brass Cover; 3=High Lifetime & Brass Cover; 4=PET Cover; 5=High Lifetime & PET Cover

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles J:E:F:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf D:70gf J:160gf E:130gf C:250gf G:320gf H:400gf
	Travel	0.25 ± 0.1mm

Diagram

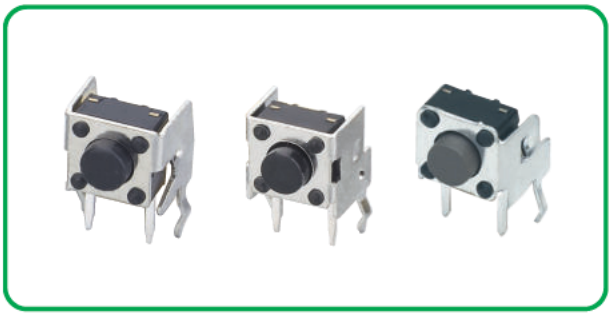
No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVDJ06 	
2	● THDP07 	
3	● THDP19 	

6x6 SERIES

6.0x6.0 Bracket Shape Type Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T H D P □□ □□□ □ □ □

Serial Number
08=Standard Type
09=Bracket with Hole
10=Non-Standard Type

Switch Height
043=(L:3.15mm)
050=(L:3.85mm)
055=(L:4.35mm)
060=(L:4.85mm)
070=(L:5.85mm)

Operating Force
A=90gf
J=160gf
C=250gf

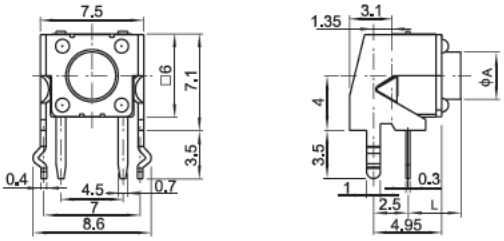
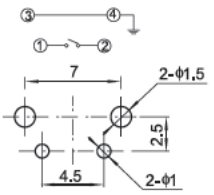
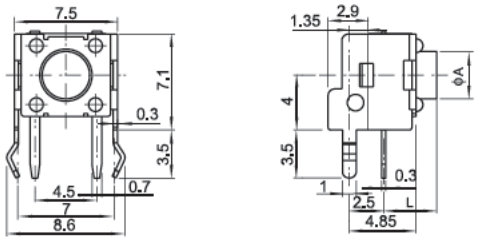
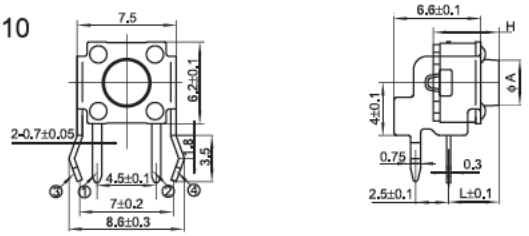
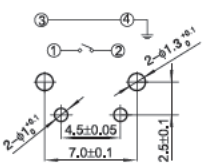
Stem Color
B=Black
R=Red
N=Brown

Life time
□ =Standard Lifetime
1=High Lifetime

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J: C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THDP08 	
2	● THDP09 	
3	● THDP10 	

L	A
3.15	3.5
3.85	3.5
5.85	3.3
8.35	3
15.85	3

6x6 SERIES

6.0x6.0 Other Bracket Shape Type Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T H D P [ ][ ] [ ][ ][ ] [ ] [ ]

Serial Number
11=Short Bracket
12=Long Bracket

Switch Height
043=(L:3.15mm)
050=(L:3.85mm)
055=(L:4.35mm)
060=(L:4.85mm)
070=(L:5.85mm)
090=(L:7.85mm)

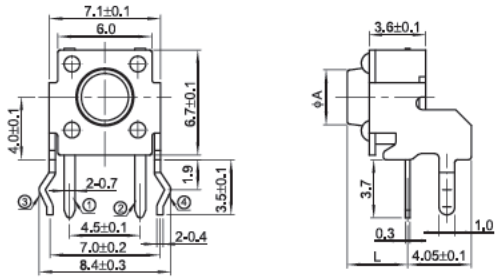
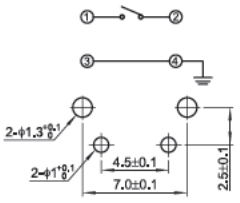
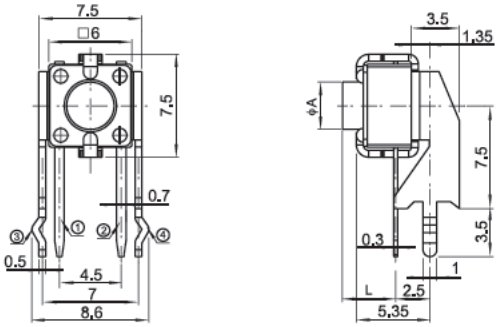
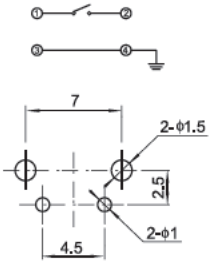
Operating Force
J=160gf
C=250gf

Stem Color
B=Black
R=Red
N=Brown

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THDP11 	
2	● THDP12 	

L	A
3.15	3.5
3.85	3.5
5.85	3.3
8.35	3
15.85	3

6x6 SERIES

6.0x6.0 SMT & Bracket Shape Type Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T H D M 1 3 [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Attach Characteristics
A:Cover with pilot of 3.0mm
B:Cover with pilot of 1.3mm

Switch Height
043=(L:3.15mm)
050=(L:3.85mm)
055=(L:4.35mm)
060=(L:4.85mm)
065=(L:5.35mm)
070=(L:5.85mm)

Operating Force
A=90gf
J=160gf
C=250gf

Stem Color
B=Black
R=Red
D=Dark Gray

Internal Dot Mark
□ =Standard

Package Style
B=Bulk R=Reel

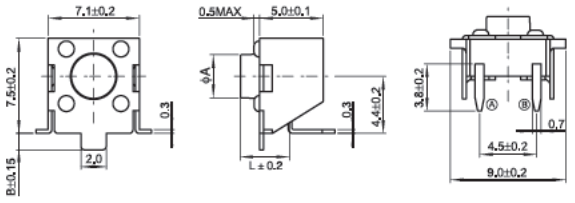
Specification

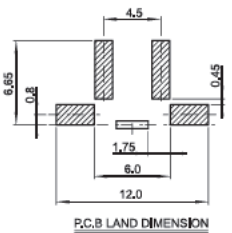
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J:C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THDM13	

L	A	B
3.15	3.5	1.3
3.85	3.5	3.0
4.35	3.3	
4.85	3.3	
5.35	3.3	
5.85	3.3	



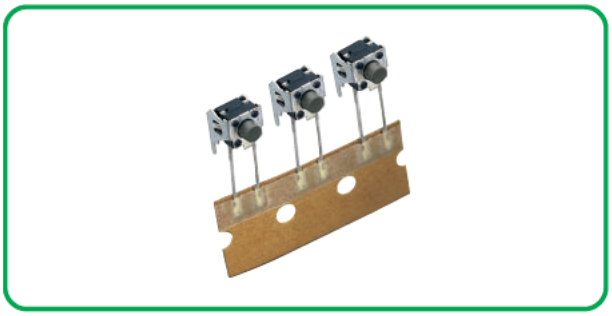


6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T H D □ □□ □ □ □

Terminal Type
P=Through Hole
T=Tapping

Serial Number
14=Tapping Type
15=Short Terminal
16=Non-standard Type

Operating Force
J=160gf
C=250gf

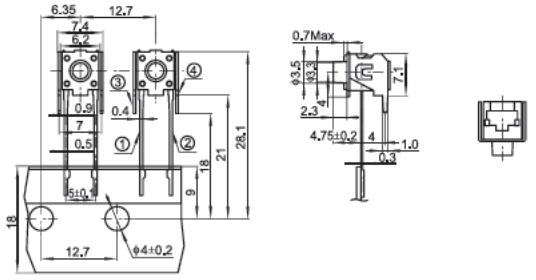
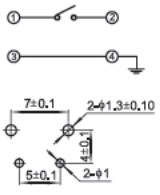
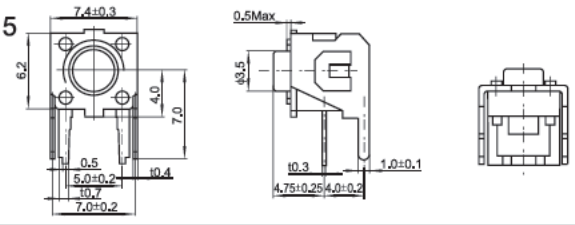
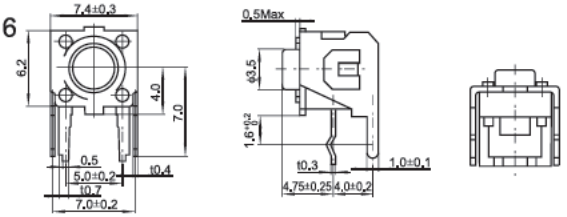
Package Style
B=Bulk T=Paper Tape

Stem Color
B=Black
W=White
R=Red
N=Brown

Specification

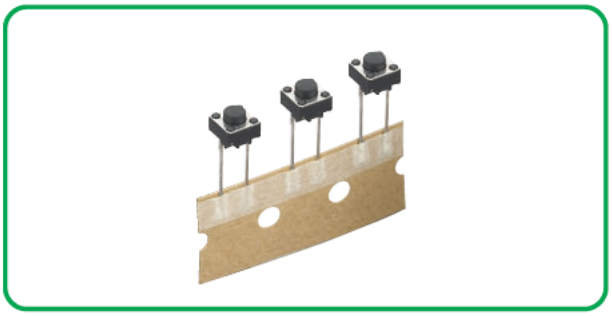
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THDT14 	
2	● THDP15 	
3	● THDP16 	

6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch



HOW TO ORDER

T V D T 1 7 ☐ ☐☐☐ ☐ ☐ ☐ ☐

Terminal Length
☐=Standard Terminal
A=3.5mm
B=4.5mm
C=5.5mm
D=4.0mm

Switch Height
043=4.3mm
050=5.0mm
055=5.5mm
060=6.0mm
065=6.5mm
070=7.0mm

Operating Force
A=90gf
B=160gf
C=250gf
E=130gf

Stem Color
B=Black
W=White
R=Red
N=Brown

Internal Dot Mark
☐=Standard Life time
1=High Lifetime
2=Brass Cover
3=High Lifetime & Brass Cover
4=PET Cover
5=High Lifetime & PET Cover

Package Style
B=Bulk T=Paper Tape

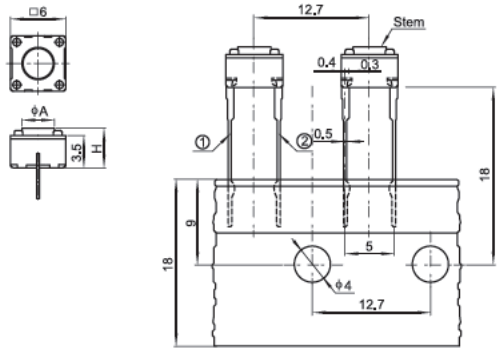
Specification

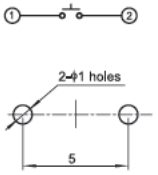
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles E:J:C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf E=130gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVDT17	

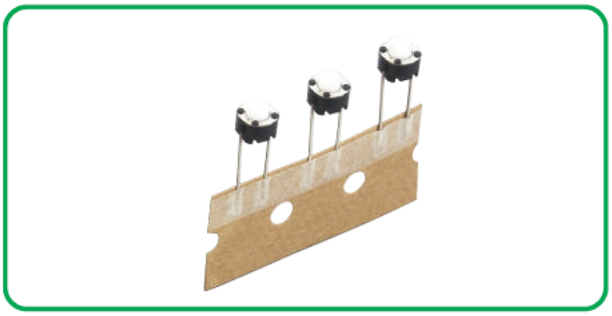
H	A
4.3	3.5
5.0	3.5
7.0	3.3
7.3	3.3
9.5	3.0





6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch



HOW TO ORDER

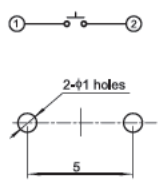
T V D T 1 8 [ ] [ ] [ ] [ ] [ ] [ ]

- Switch Height: 043=4.3mm; 050=5.0mm
- Operating Force: A=90gf; J=160gf; C=250gf
- Stem Color: B=Black; W=White; R=Red; N=Brown
- Package Style: B=Bulk; T=Paper Tape

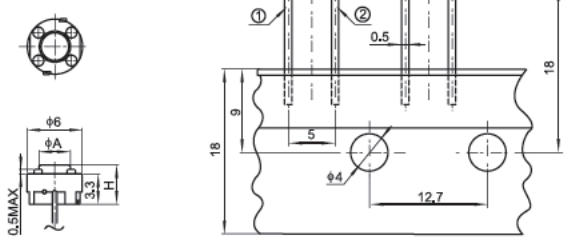
Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J:C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVDT18	

H	A
4.3	3.5
5	3.5



6x6 SERIES

9.1x7.3 Multiple Type Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T H D P 2 4 [ ] [ ] [ ] [ ]

Switch Height
084=(L:6.80)

Operating Force
A=90gf
J=160gf
C=250gf

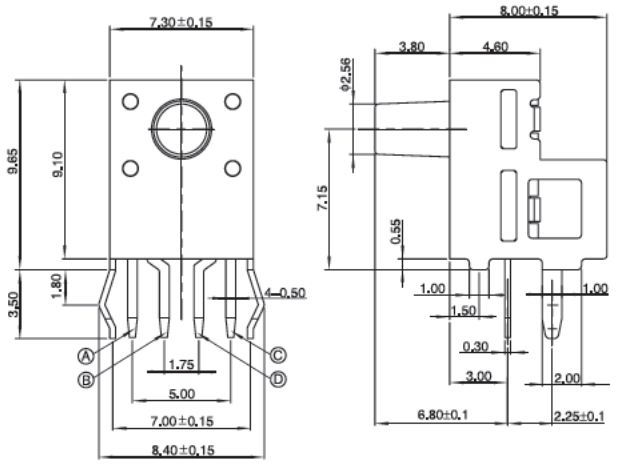
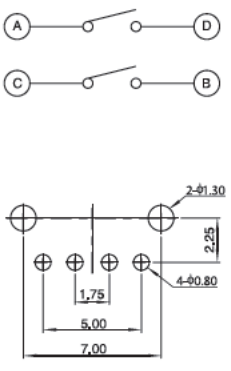
Stem Color
B=Black
R=Red
N=Brow

Internal Dot Mark
1=Button in the above
2=Two Button
3=Button below

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles min
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● THDP24 	

HOW TO ORDER

T V D U 2 1 — 0 5 0 — [ ] — [ ]

Switch Height
050=5.0mm

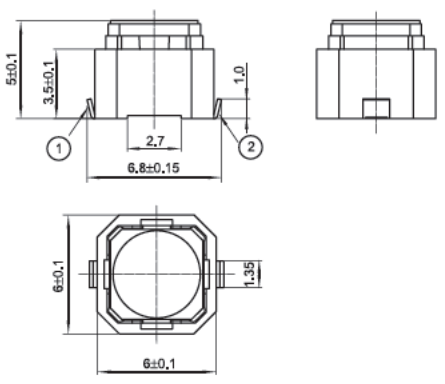
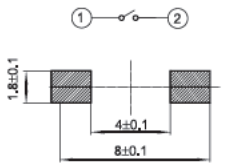
Operating Force
C=250gf
J=160gf

Package Style
B=Bulk
R=Reel

Specification

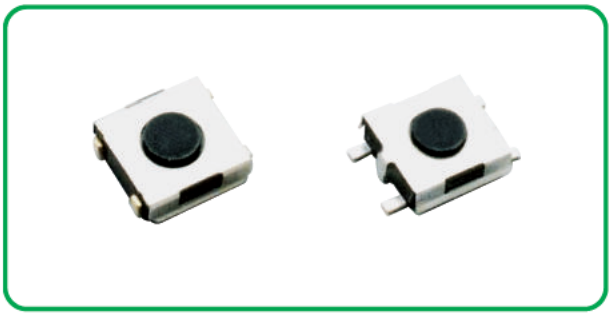
Items		Standard
Operating temperature range		-40℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	1.30 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVDU21 	

6.2x6.2 SERIES

6.2x6.2 Flat & U-Type Terminals Type Tact Switch



HOW TO ORDER

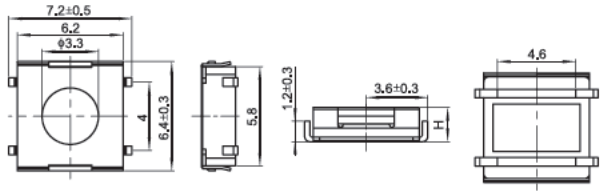
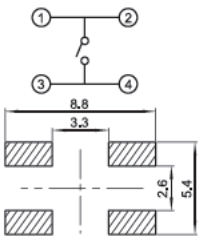
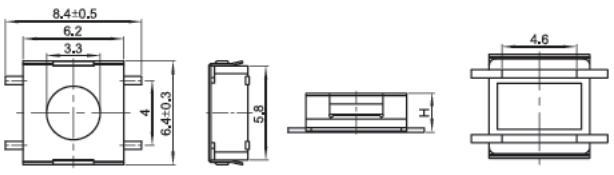
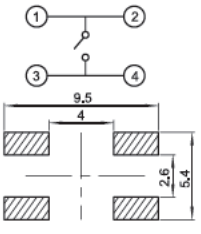
T V E ☐ ☐☐ ☐ ☐☐☐ ☐ ☐ ☐

- **Terminal Type**: U= U Type, F=Flat
- **Serial Number**: 01=U Type, 02=Flat Type
- **Attach Characteristics**: E=With Earth Terminal, N=Non Earth Terminal
- **Switch Height**: 020=2.0mm, 025=2.5mm, 031=3.1mm
- **Operating Force**: J=160gf, C=250gf
- **Stem Color**: B=Black, R=Red, Y=Yellow, D=Dark Gray
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVEU01  H: 3.1 / 2.5 / 2.0	
2	● TVEF02  H: 3.1 / 2.5 / 2.0	

6.2x6.2 SERIES

6.2x6.2 Dust-Proof Type Tact Switch

HOW TO ORDER

T V E M 0 4 □ □ □ □ □ □

- **Attach Characteristics**: E=With Earth Terminal; N=Non Earth Terminal
- **Switch Height**: 031=3.1mm; 050=5.0mm
- **Operating Force**: J=160gf; C=250gf
- **Stem Color**: B=Black; R=Red; G=Green; U=Blue
- **Package Style**: B=Bulk R=Reel

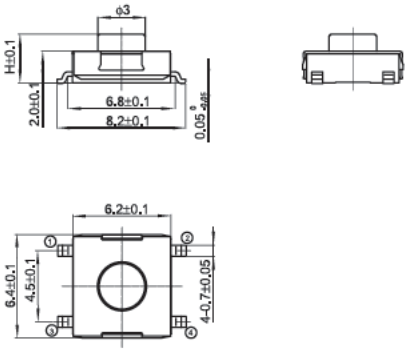
Specification

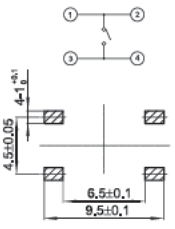
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVEM04	

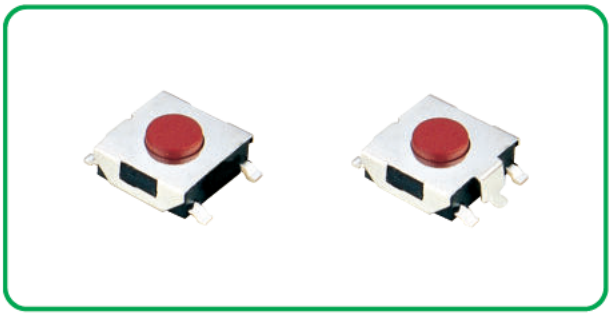
H
3.1
5.0





6.2x6.2 SERIES

6.2x6.2 SMT Terminals Type Tact Switch



HOW TO ORDER

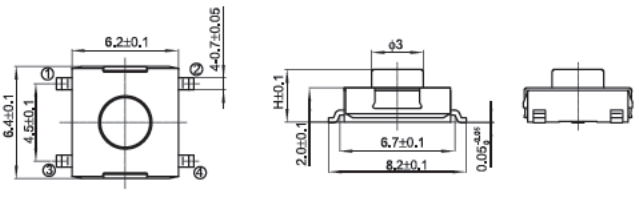
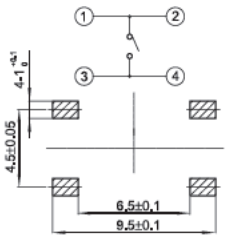
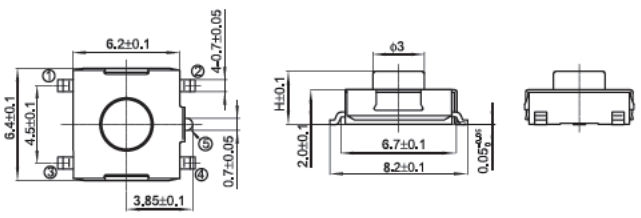
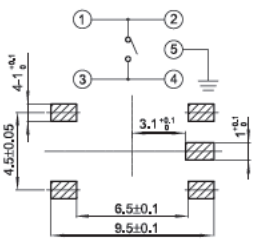
T V E M 0 5 □ □□□ □ □ □

- **Attach Characteristics**
  - E=With Earth Terminal
  - N=Non Earth Terminal
- **Switch Height**
  - 025=2.5mm
  - 031=3.1mm
  - 034=3.4mm
- **Operating Force**
  - A=90gf J=160gf
  - C=250gf D=70gf
- **Stem Color**
  - B=Black
  - R=Red
- **Package Style**
  - B=Bulk
  - R=Reel

Specification

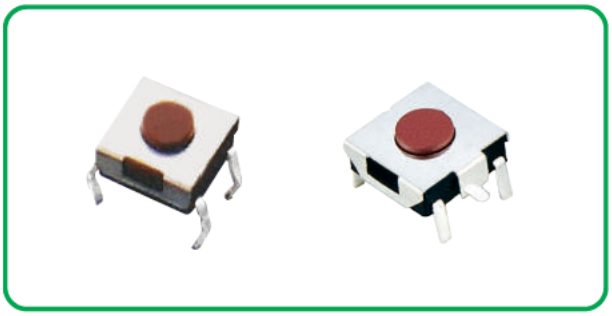
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:C:D:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVEM05-N H: 3.4 / 3.1 / 2.5 	
2	● TVEM05-E H: 3.4 / 3.1 / 2.5 	

6.2x6.2 SERIES

6.2x6.2 Through Hole Terminals Type Tact Switch



HOW TO ORDER

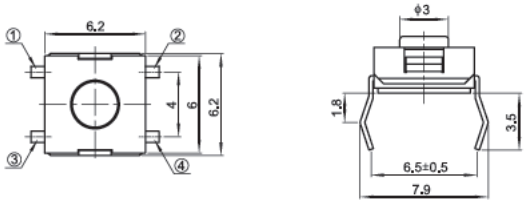
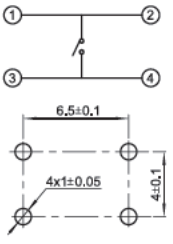
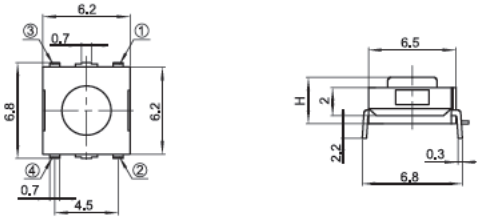
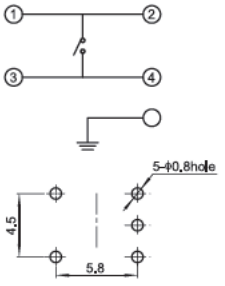
T V E ☐ ☐☐ ☐ ☐☐☐ ☐ ☐

- **Terminal Type**: P=Through Hole; J=J Type
- **Serial Number**: 07=Through Hole; 08=J Type
- **Attach Characteristics**: E=With Earth Terminal; N=Non Earth Terminal
- **Switch Height**: 025=2.5mm; 031=3.1mm; 034=3.4mm
- **Operating Force**: A=90gf; J=160gf; C=250gf
- **Stem Color**: B=Black; R=Red

Specification

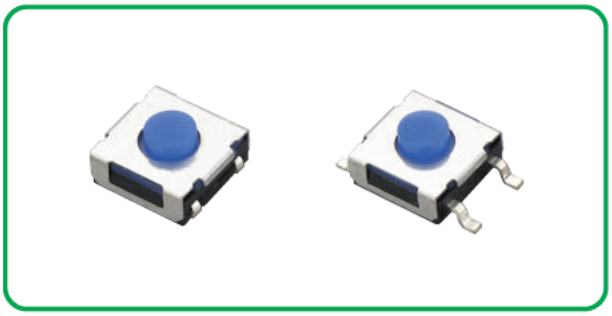
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:C=100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVEP07  H: 3.4 / 3.1 / 2.5	
2	● TVEJ08  H: 3.4 / 3.1 / 2.5	

6.2x6.2 SERIES

6.2x6.2 With Middle-travel (SMT)Type Tact Switch



HOW TO ORDER

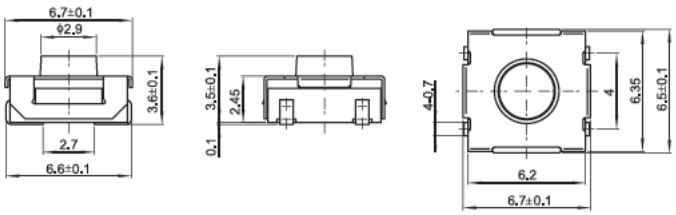
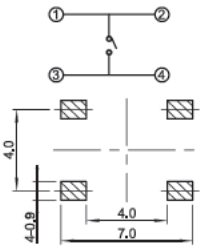
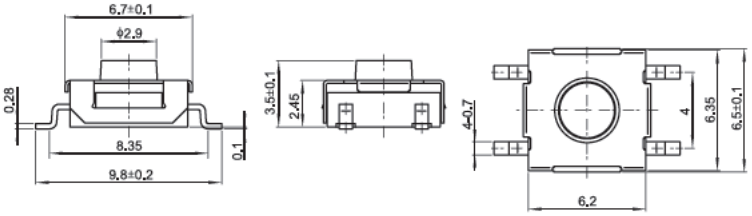
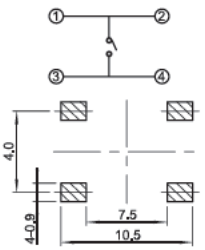
T V E ☐ ☐☐ ☐☐☐ ☐ ☐ ☐

- **Terminal Type**: J=J Type; M=S.M.T
- **Serial Number**: 10=J Type; 11=S.M.T
- **Switch Height**: 035=3.5mm; 050=5.0mm
- **Operating Force**: J=160gf C=250gf; G=320gf H=400 gf
- **Stem Color**: B=Black; W=White; R=Red; U=Blue
- **Package Style**: B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:200,000 Cycles G:H:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf G:320gf H:400gf
	Travel	0.35 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVEJ10 	
2	● TVEM11 	

6.2x6.2 SERIES

6.2x6.2 (J SMT)Series With Washable Type Tact Switch

HOW TO ORDER

T V E J 1 2 ☐ ☐☐☐ ☐ ☐ ☐

Attach Characteristics
E=With Earth Terminal
N=Non Earth Terminal

Switch Height
023=2.3mm
031=3.1mm
035=3.5mm
038=3.8mm
045=4.5mm
052=5.2mm

Operating Force
J=160gf
C=250gf

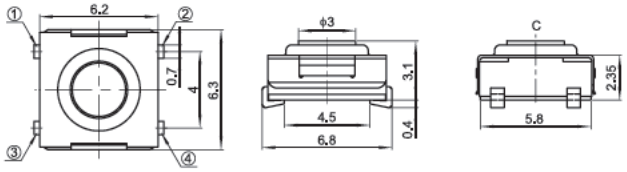
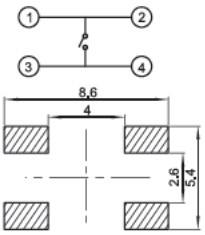
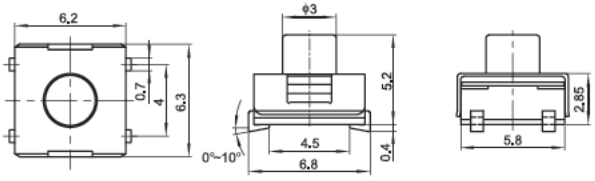
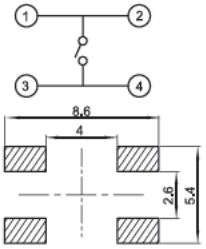
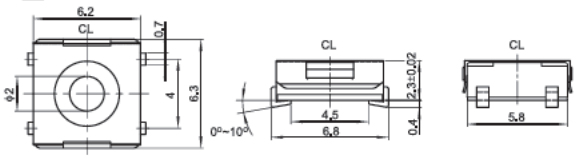
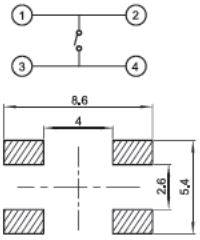
Stem Color
B=Black
R=Red
G=Green
U=Blue
N=Brown

Package Style
B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

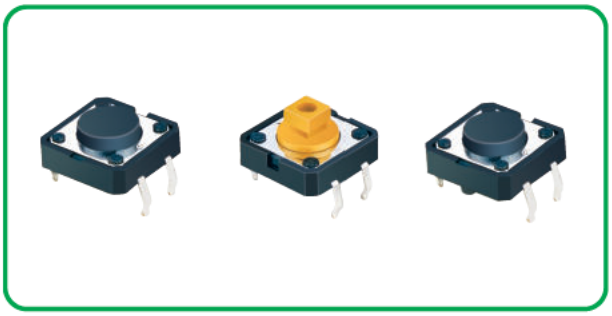
Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVEJ12-☐031 	
2	● TVEJ12-☐052 	
3	● TVEJ12-☐023 	

12x12 SERIES

12.0x12.0 Flat Stem With Stable Operation Feeling Tact Switch

LEAD FREE RoHS Compliant Halogen Free



HOW TO ORDER

T V G P 0 1 [ ] [ ][ ][ ] [ ] [ ] [ ]

Attach Characteristics
A=Base With Pilot
☐=Non Pilot

Switch Height
043=4.3mm
050=5.0mm
060=6.0mm
070=7.0mm
G73=7.3mm(Square)

Operating Force
J=160gf
C=250gf

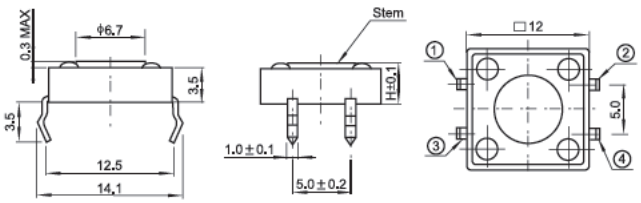
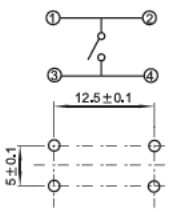
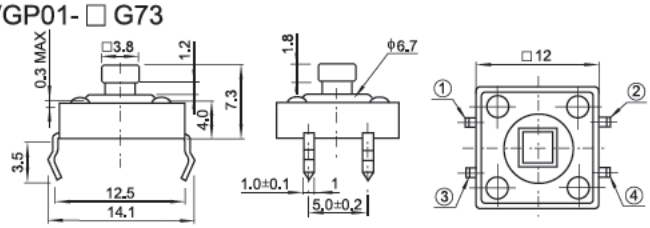
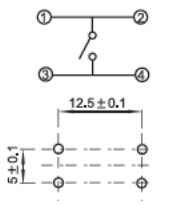
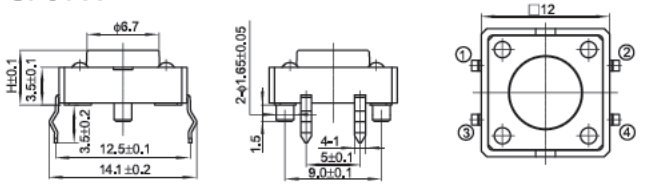
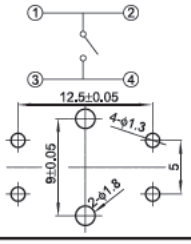
Stem Color
B=Black
R=Red
Y=Yellow
N=Brown

Internal Dot Mark
☐=Standard Lifetime
1=High Lifetime
2=Brass cover
3=High Lifetime&Brass Cover
4=PET Cover
5=High Lifetime & PET Cover
6=Base Without Slot

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.35 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVGP01  H: 4.3 / 5.0 / 6.0 / 7.0 / …	
2	● TVGP01-☐G73 	
3	● TVGP01-A  H: 4.3 / 5.0 / 6.0 / 7.0 / …	

12x12 SERIES

12.0x12.0 Flat Stem With Stable Operation Feeling Tact Switch

HOW TO ORDER

T V G M 0 3 □ □ □ □ □ □ □

Attach Characteristics
A=Base With Pilot
□ =Non Pilot

Switch Height
043=4.3mm
050=5.0mm
060=6.0mm
070=7.0mm
G73=7.3mm(Square)

Operating Force
J=160gf
C=250gf

Stem Color
B=Black
R=Red
N=Brown

Internal Dot Mark
□ =Standard Lifetime
1=High Lifetime
6=Base Without Slot

Package Style
B=Bulk
R=Reel
U=Tube

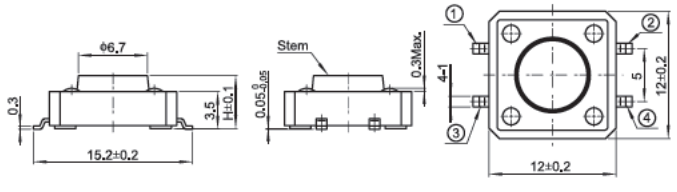
Specification

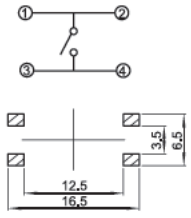
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.35 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVGM03	

H
4.3
5.0
6.0
7.0





WASHABLE SERIES

6.0x6.0 Washable Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T V J P □□ ■■■ ■ ■

Serial Number
13=Stamdard
16=With A Sheath

Switch Height
043=4.3mm
045=4.5mm
050=5.0mm
055=5.5mm
060=6.0mm
065=6.5mm
070=7.0mm

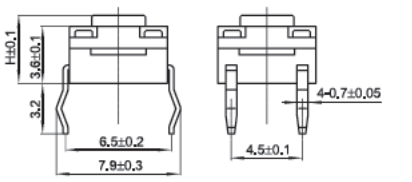
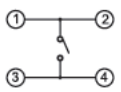
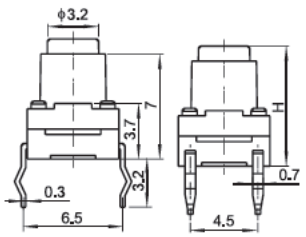
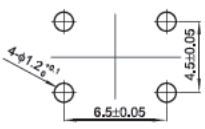
Operating Force
J=160gf
C=250gf

Stem color
R=Red
B=Black

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJP13  H: 4.3 / 5.0 / 5.5 / 6.0 / 6.5 / 7.0 / 7.5 / 8.0 / 8.5 / 9.0 / 9.5	
2	● TVJP16  H: 8 / 8.5 / 9 / 9.5 / ...	

WATERPROOF SERIES

6.0x6.0 Washable Tact Switch

LEAD FREE

RoHS Compliant

Water-proof

HOW TO ORDER

T V J M 1 7 [ ][ ][ ] [ ] [ ]

Switch Height
043=4.3mm
045=4.5mm
048=4.8mm
050=5.0mm
⋮

Operating Force
J=160gf
C=250gf

Stem color
R=Red
B=Black

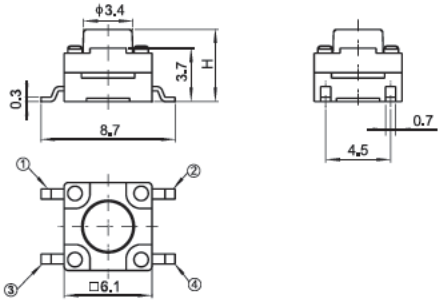
Specification

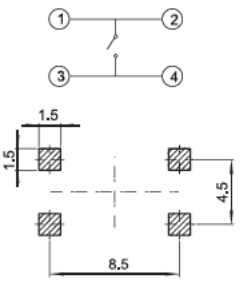
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	100mA. 30V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	AC500V(50Hz) for 1 min.
	Contact resistance	50mΩ max.
Durability	Lifetime	J:C:100.000 Cycles
Mechanical performance	Operating force	J:160gf C:250g
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJM17	

H
4.3
4.5
4.8
5
...





WASHABLE SERIES

8.0x8.0 Washable Tact Switch

LEAD FREE

RoHS Compliant

Water-proof

HOW TO ORDER

T V J P 1 4 [ ] [ ] [ ] [ ]

Switch Height
065=6.5mm
070=7.0mm
075=7.5mm
080=8.0mm
085=8.5mm

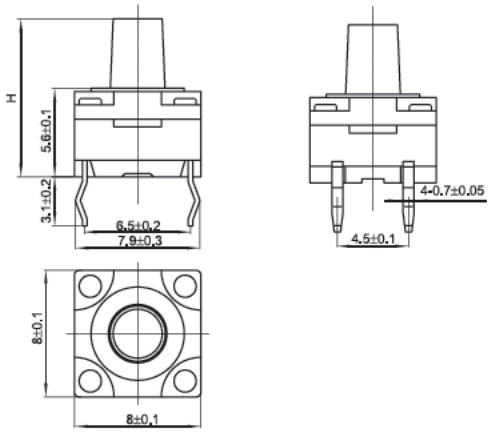
Operating Force
J=160gf
C=250gf

Specification

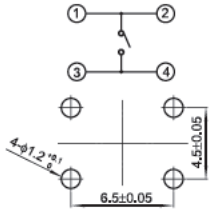
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVJP14	



H
6.5
7.0
7.5
8.0
8.5
9.0
9.5
11.0
12.0
13.0



WASHABLE SERIES

10.0x10.0 Washable Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T V J P 1 2 ☐ ☐☐☐ ☐ ☐

- Switch Height: 336=33.6mm
- Stem Color: B=Black, R=Red
- Attach Characteristics: E=With Frame, N=Non Frame
- Operating Force: H=400gf

Specification

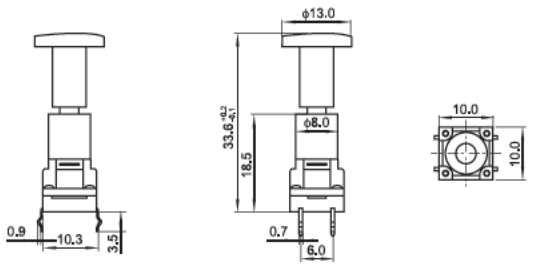
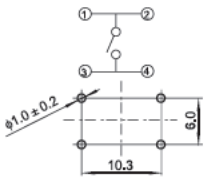
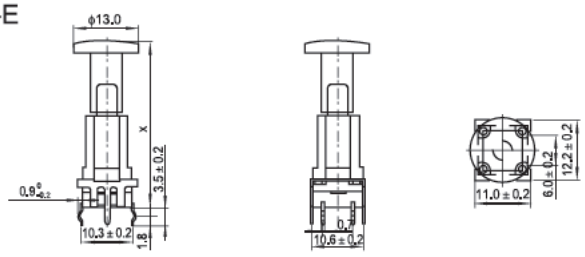
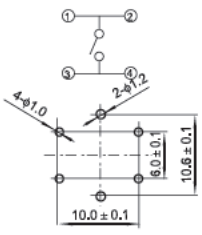
Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.

Items		Standard
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	H:400gf ± 70gf
	Travel	0.40 ± 0.2mm

Water Resisting Performance

Items \ Model	Vertical type	Horizontal type
Temperature of water	60℃	60℃
Depth of water	10cm	10cm
Immersion duration	240h	1h

Diagram

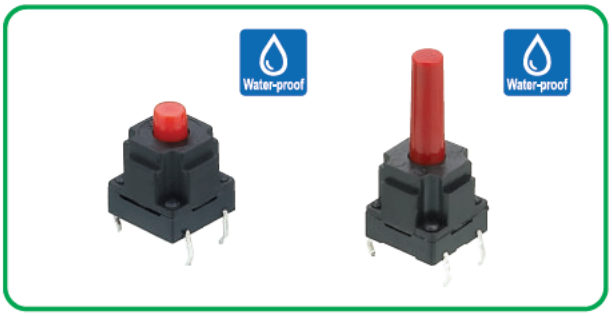
No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJP12-N 	
2	● TVJP12-E 	

WASHABLE SERIES

10.0x10.0 Washable Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T V J P 1 1 [ ] [ ] [ ]

Switch Height
130=13.0mm
150=15.0mm
232=23.2mm

Operating Force
J=160gf
C=250gf

Stem Color
B=Black
R=Red

Specification

Items		Standard
Operating temperature range		-40℃ to +90℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.30 ± 0.1mm

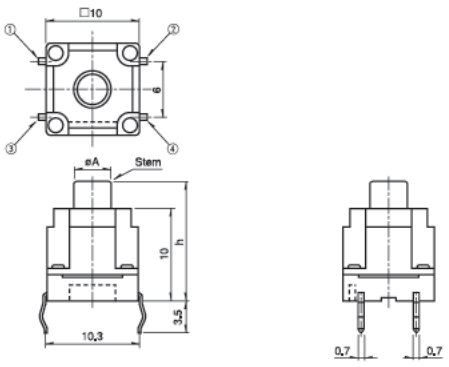
Water Resisting Performance

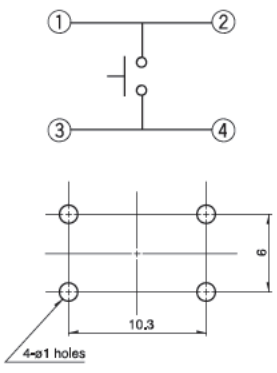
Temperature of water	60℃
Depth of water	10cm
Immersion duration	240h

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TVJP11	

H	A
13	3.8
15	3.5
23.2	3.5



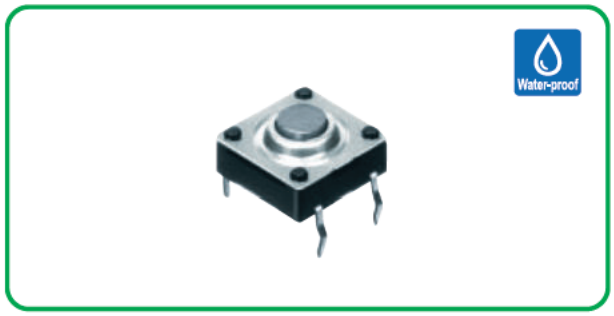


WASHABLE SERIES

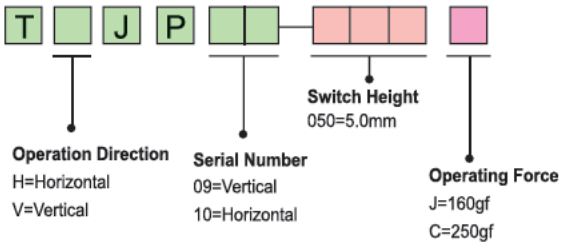
10.0x10.0 Washable Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER



Specification

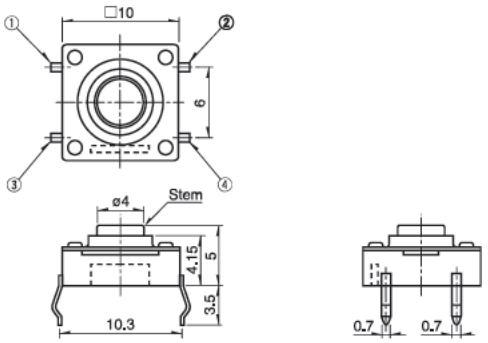
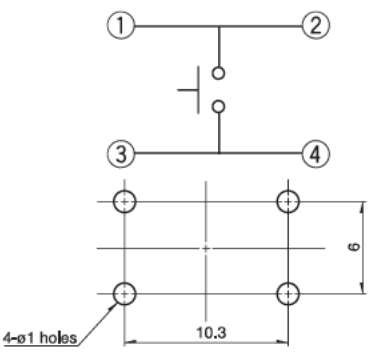
Items		Standard
Operating temperature range		-40℃ to +90℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.

Items		Standard
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.30 ± 0.1mm

Water Resisting Performance

Items \ Model	Vertical type	Horizontal type
Temperature of water	60℃	60℃
Depth of water	10cm	10cm
Immersion duration	240h	1h

Diagram

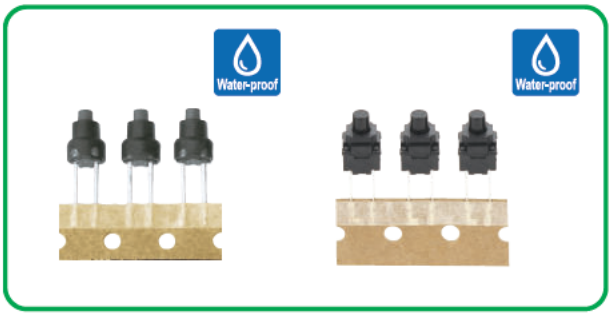
No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJP09 	

WASHABLE SERIES

8.0x8.0 Washable Tact Switch

LEAD FREE

RoHS Compliant



HOW TO ORDER

T V J P

- Serial Number: 07=Round Case, 08=Square Case
- Switch Height: 130=13.0mm
- Operating Force: J=160gf, C=250gf
- Stem Color: B=Black
- Package Style: B=Bulk, T=Paper Tape

Specification

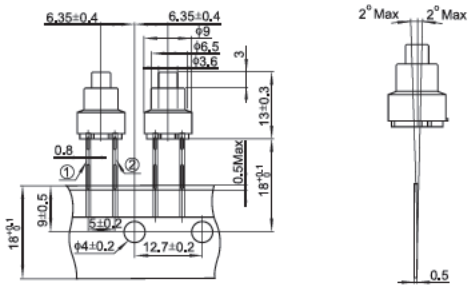
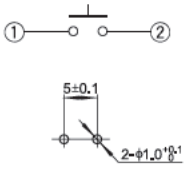
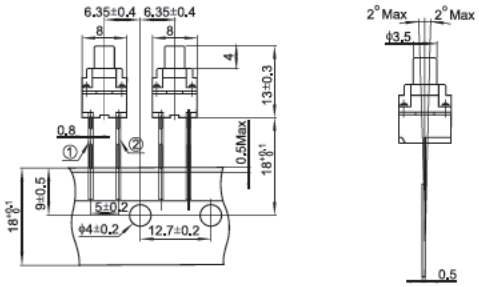
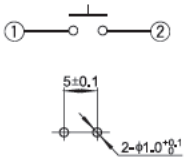
Items		Standard
Operating temperature range		-40℃ to +90℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.

Items		Standard
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Water Resisting Performance

Temperature of water	60℃
Depth of water	10cm
Immersion duration	240h

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJP07 	
2	● TVJP08 	

WASHABLE SERIES

12x12 Washable Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T V J P 1 5 [ ] [ ] [ ] [ ]

Switch Height
065=6.5mm
070=7.0mm
075=7.5mm
080=8.0mm
085=8.5mm

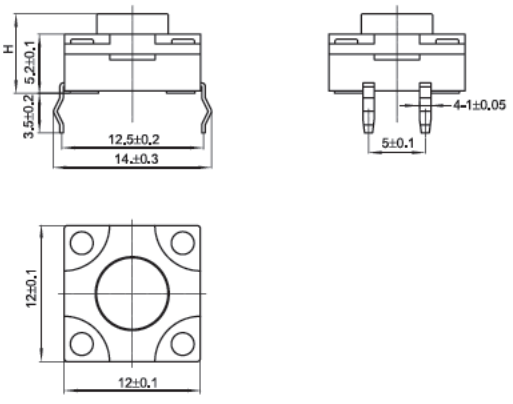
Operating Force
J=160gf
C=250gf

Specification

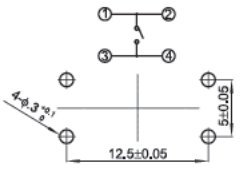
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TVJP15	



H
6.5
7.0
7.5
8.0
8.5
9.0
9.5
10.0
11.0
12.0



InterElcom

02

MULTI-FUNCTION SWITCH SERIES

Features:

- Sharp click feel with a positive tactive tactile feedback.
- Ultraminiature and light weight structure suitable for high density mounting, economical but reliable.
- Insert molding in the contact with special treatment prevents flux build-up during soldering and permits auto-dipping.

Applications:

- Cameras, digital still cameras.
- Digital video camcorders.
- Compact portable devices.
- For operating the other multifunctional electronic devices

MULTI FUNCTION SERIES

6.2x6.5 Double Action Type Tact Switch

HOW TO ORDER

T M H F 0 7 [ ] [ ] [ ]

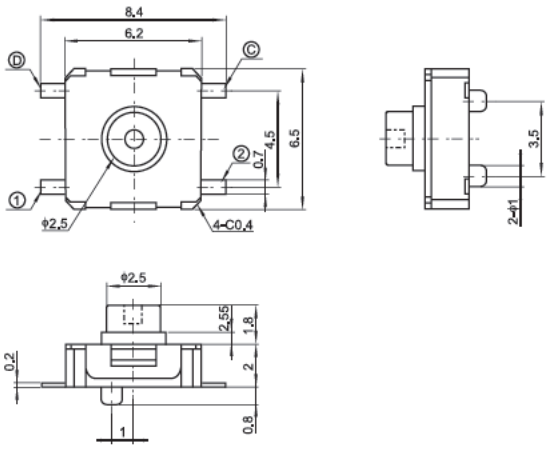
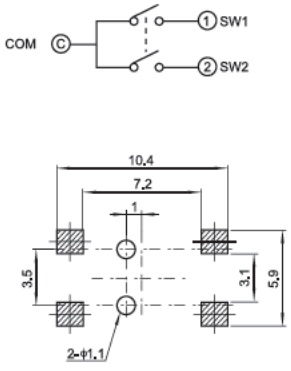
Switch Height
038=3.8mm
020=2.0mm(Non Stem)

Package Style
B=Bulk
R=Reel

Specification

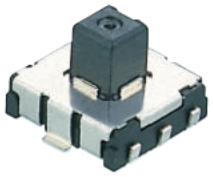
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles
Mechanical performance	Operating force	1 st 100 ± 40gf 2 st 250 ± 80gf
	Travel	1 st 0.3 ± 0.1mm 2 st 0.55 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHF07 	

MULTI FUNCTION SERIES

6.1x6.5 4-direction & center-push Tact Switch



HOW TO ORDER

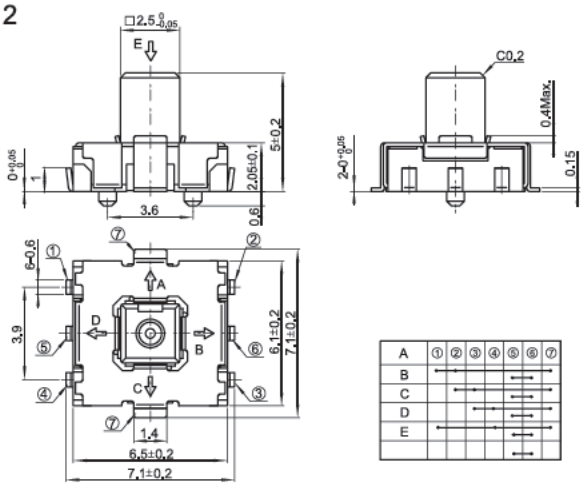
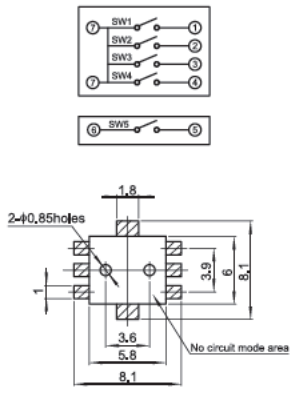
T M H U 1 2 □ ■ ■ ■

- **Attach Characteristics**: □=Base With Pilot; N=Non Pilot
- **Stem Color**: B=Black; N=Brow
- **Stem Type**: A=Stem Without a Slot; B=Stem With a Slot
- **Package Style**: B=Bulk R=Reel

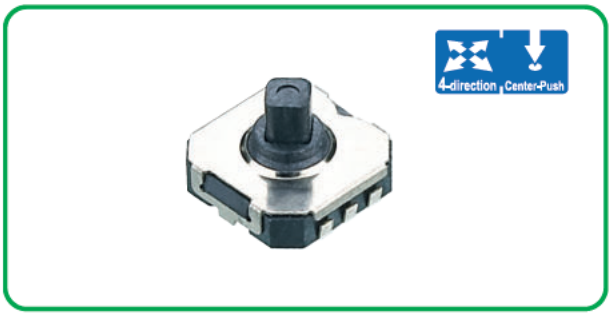
Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	4-direction 200mΩ max Center push 100mΩ max.
Durability	Lifetime	50,000 Cycles
Mechanical performance	Operating force	4-direction 140 ± 50gf Center push 220 ± 80gf
	Travel	4-direction 5° ±2° Center push 0.20±0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHU12 	

7.5x7.5 4-direction & center-push Tact Switch



HOW TO ORDER

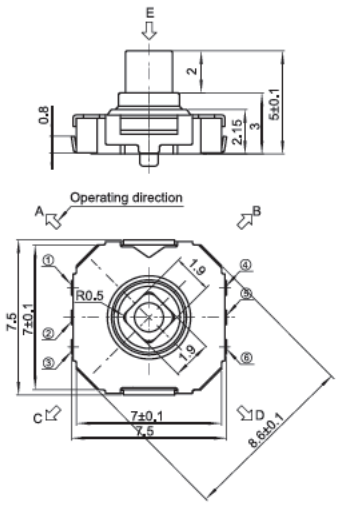
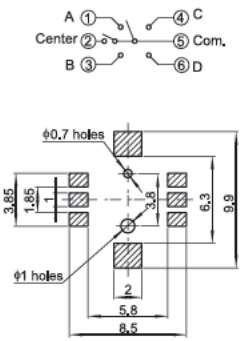
T M H U 1 3 □ ■ ■

- Attach Characteristics: □ =Base With Pilot; N=Non Pilot
- Stem Color: B=Black; W=White
- Package Style: B=Bulk; R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	50,000 Cycles
Mechanical performance	Operating force	4-direction 160 ± 50gf Center push 280 ± 100gf
	Travel	4-direction 0.20 ± 0.1mm Center push 0.15 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TMHU13 	

MULTI FUNCTION SERIES

10.0x10.4 4-direction & center-push Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T M H M 1 4 [ ] [ ] [ ] [ ]

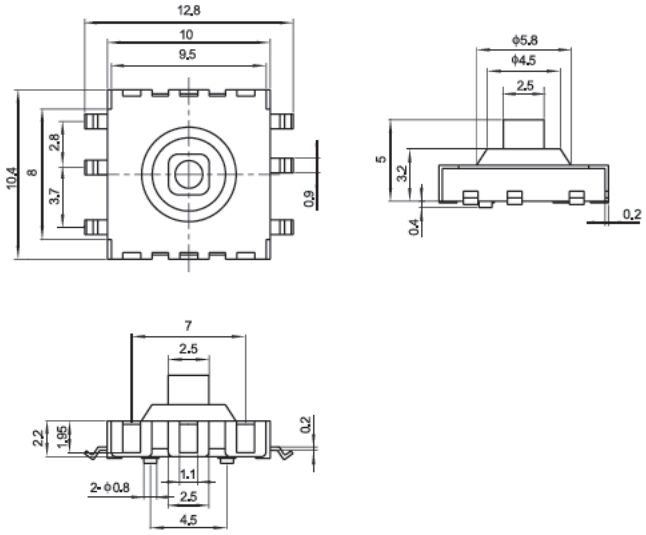
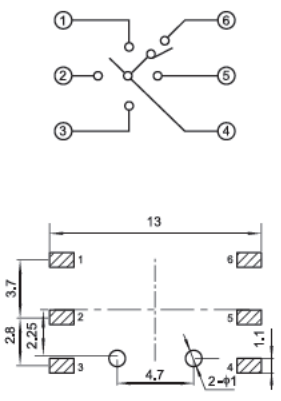
Package Style
B=Bulk
R=Reel

Switch Height
050=5.0mm

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles
Mechanical performance	Operating force	4-direction 160 ± 80gf Center push 300 ± 150gf
	Travel	4-direction 4° ±2° Center push 0.20±0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHM14 	

MULTI FUNCTION SERIES

10.0x10.7 4-direction & center-push Tact Switch

LEAD FREE

RoHS Compliant

HOW TO ORDER

T M H M 1 6 [ ] [ ] [ ] [ ]

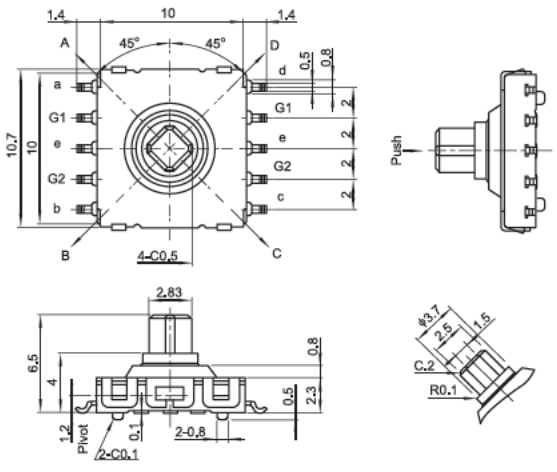
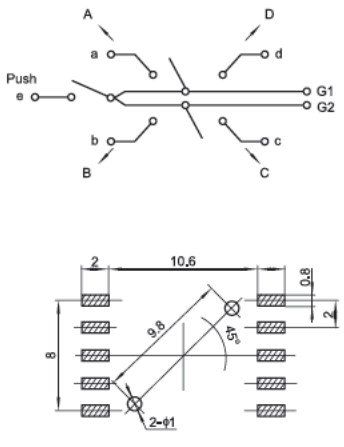
Switch Height
050=5.0mm
065=6.5mm
090=9.0mm

Package Style
B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles
Mechanical performance	Operating force	4-direction 160 ± 80gf Center push 300 ± 150gf
	Travel	4-direction 4° ±2° Center push 0.20±0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHM16 	

MULTI FUNCTION SERIES

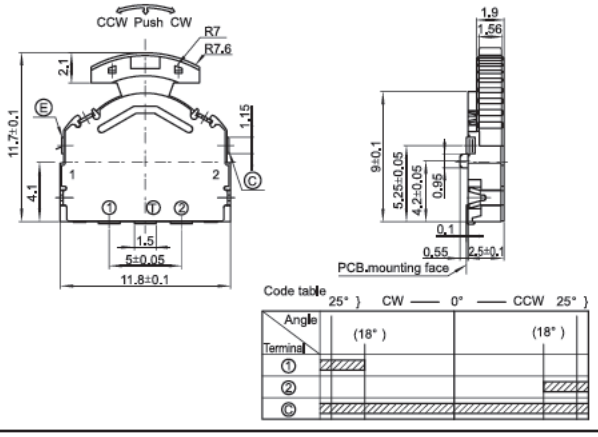
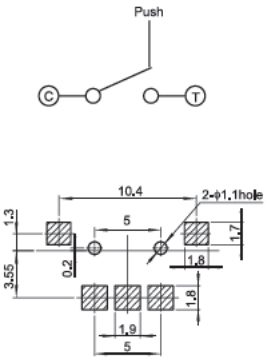
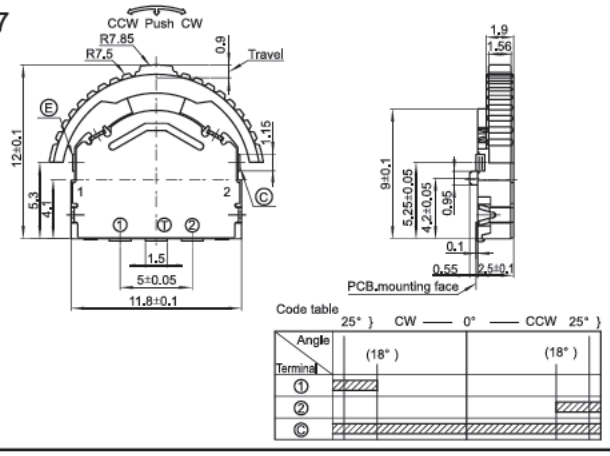
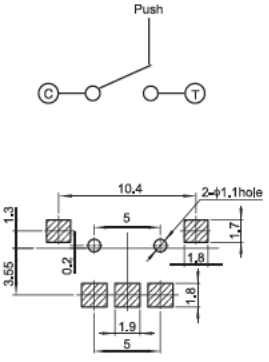
Lever and Push Operation Type Switch Tact Switch

LEAD FREE RoHS Compliant Halogen Free

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 5V DC
	Output voltage	1V max. at 1mA 5V DC
	Contact resistance	100mΩ max.
	Lifetime	100,000 Cycles
Durability	Operating force	Lever portion 70±40gf Push portion 200±100gf
Mechanical performance	Travel	4-direction -25° –0° – +25°
		Push portion 0.90 ± 0.1mm

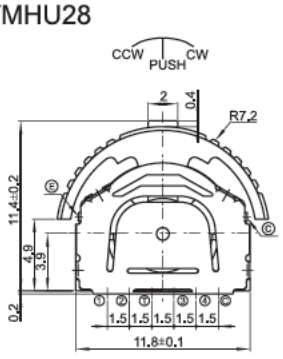
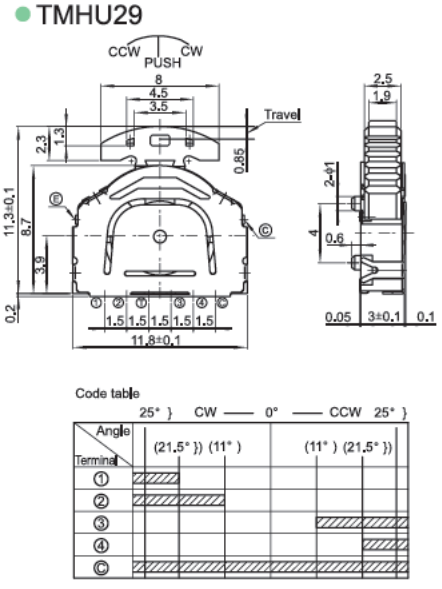
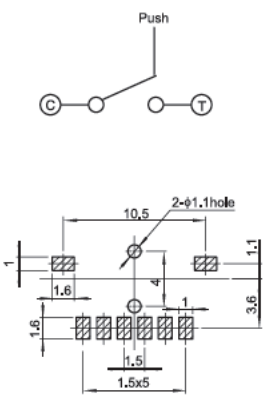
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● TMHU26 	
2	● TMHU27 	

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 5V DC
	Output voltage	1V max. at 1mA 5V DC
	Contact resistance	100mΩ max.
	Lifetime	100,000 Cycles
Durability	Operating force	Lever portion 70±40gf Push portion 200±100gf
Mechanical performance	Travel	4-direction -25° –0° – +25°
		Push portion 0.85 ± 0.1mm

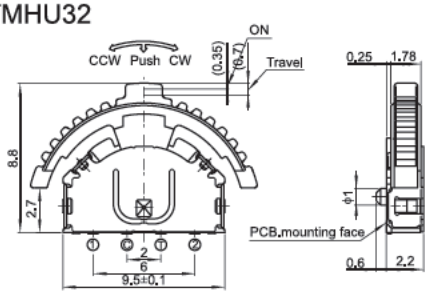
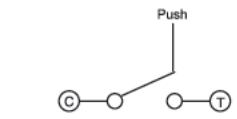
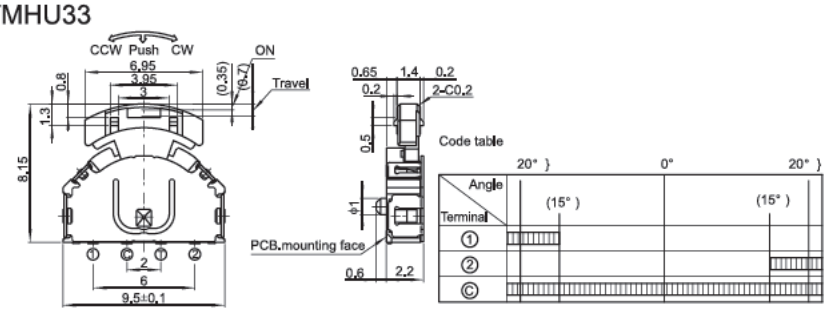
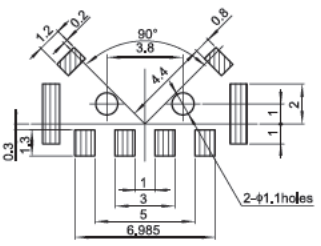
Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHU28  ● TMHU29 	

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 5V DC
	Output voltage	1V max. at 1mA 5V DC
	Contact resistance	100mΩ max.
	Lifetime	100,000 Cycles
Durability	Operating force	Lever portion 70±40gf Push portion 250±100gf
Mechanical performance	Travel	4-direction -20° –0° – +20°
		Push portion 0.70 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● TMHU32 	
2	● TMHU33 	

InterElcom

LIGHT SWITCH SERIES 03

Features:

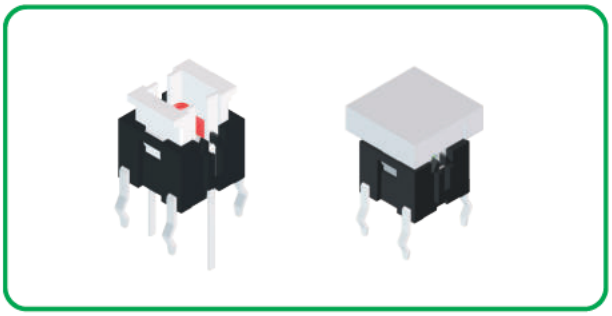
- With a fixed stand and covers in many kinds of structure and color;
- High sensitive sounds silvery, feeling and rythm are perfect.
- It can be mounted with any color LED and bouble colors or 3 colors LED according to preference.
- It can be assembled in different ways: DIP & SMT, with pushbutton an tact for operating.
- We have got some patent for new project.

Applications:

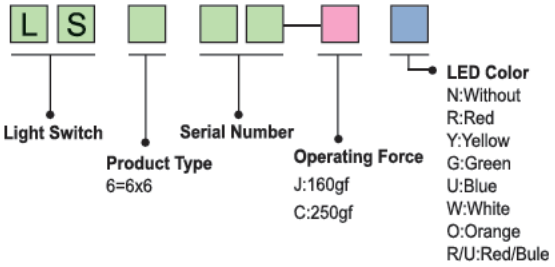
The switches work with all kinds of electrical appliances, such as audio apparatus, office equipment, instruments and meter equipment, TV, DVD, and so on.

LEAD FREE

RoHS Compliant



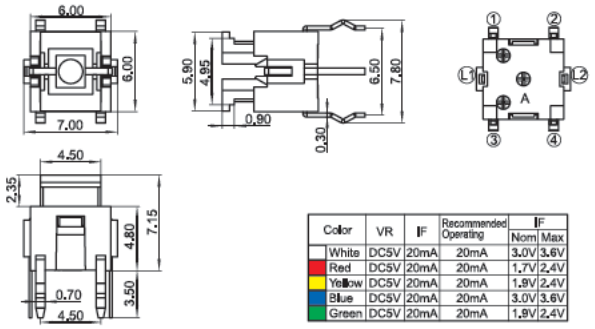
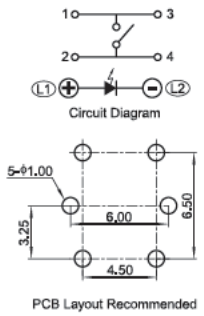
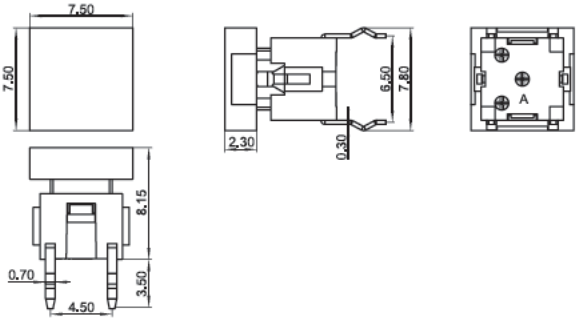
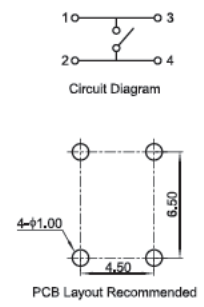
HOW TO ORDER



Specification

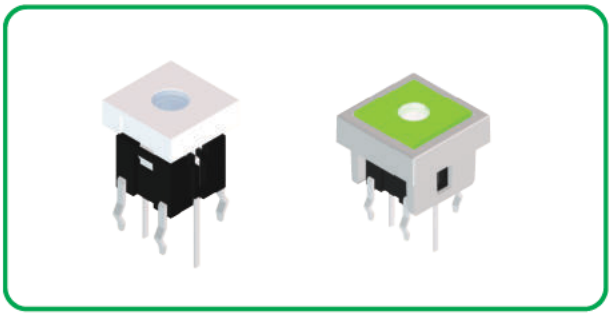
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

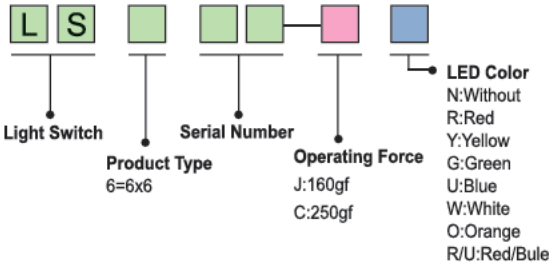
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS601 	
2	● LS602 	

LEAD FREE

RoHS Compliant



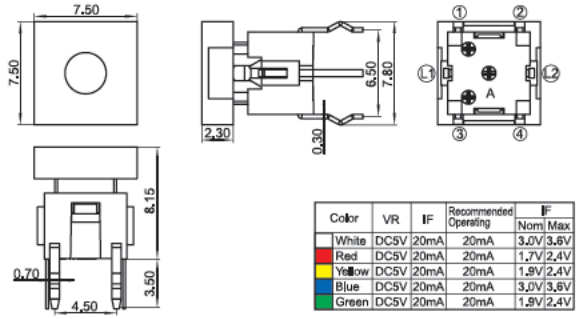
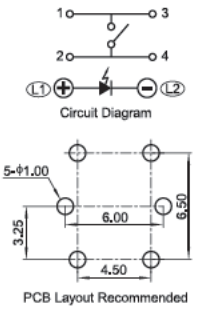
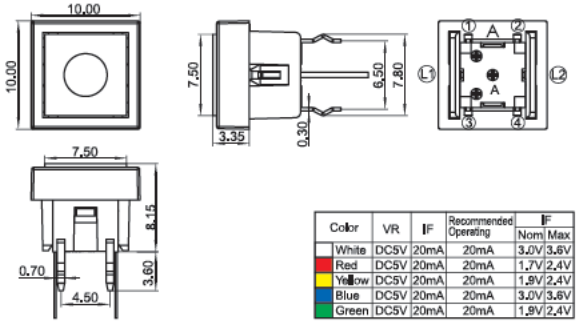
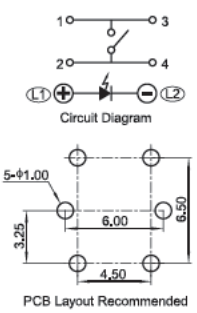
HOW TO ORDER



Specification

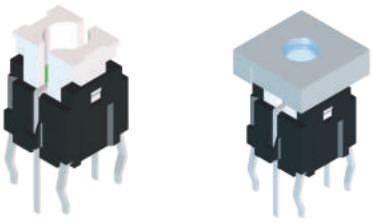
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

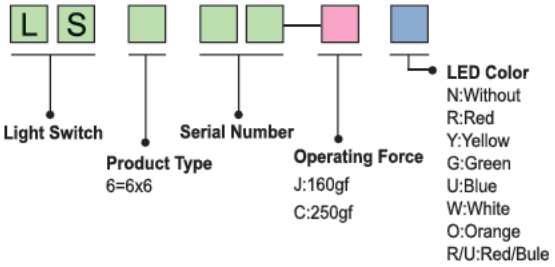
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS603 	
2	● LS604 	

LEAD FREE

RoHS Compliant



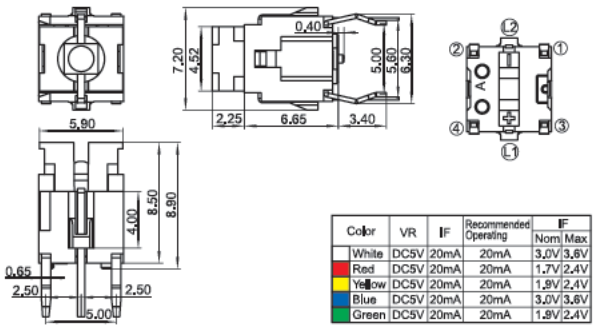
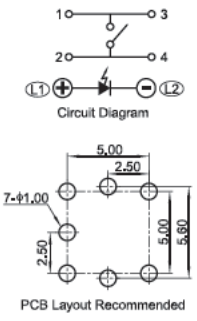
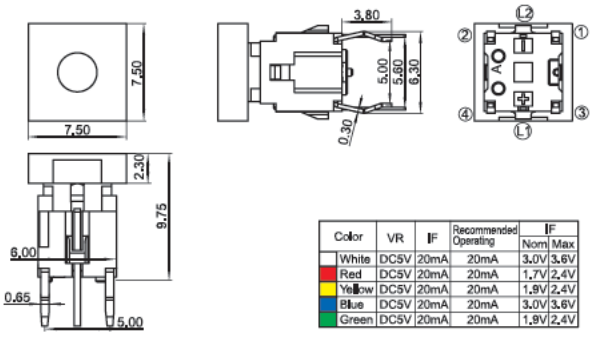
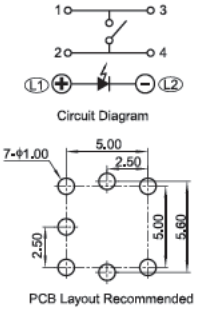
HOW TO ORDER



Specification

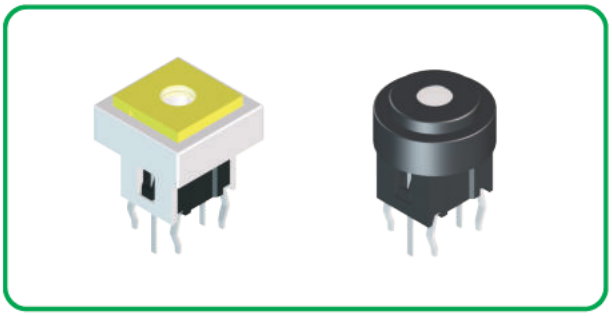
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

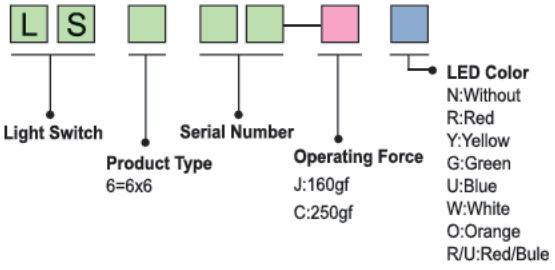
No.	Dimensions	Circuit Diagram Pad Layout
1	● LS605 	
2	● LS606 	

LEAD FREE

RoHS Compliant



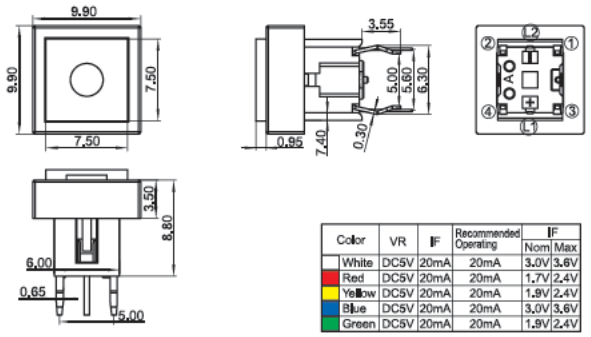
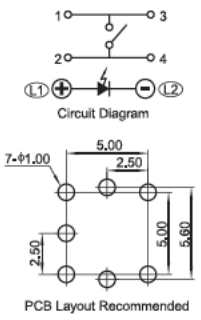
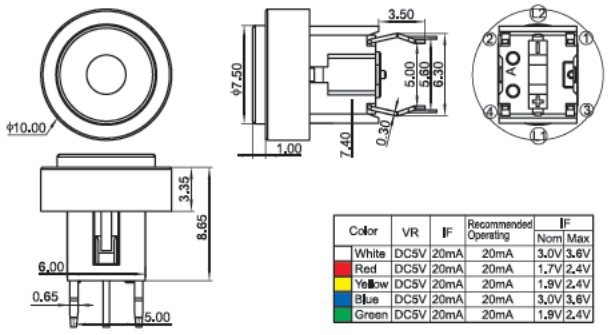
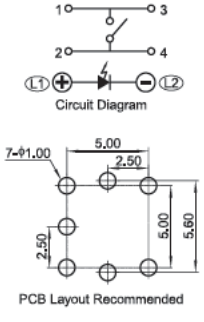
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

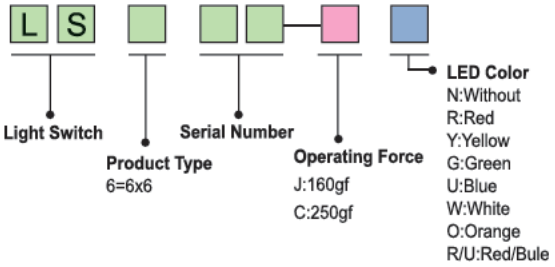
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS609 	
2	● LS610 	

LAMP SERIES

6.0x6.0 Led Built-in Type

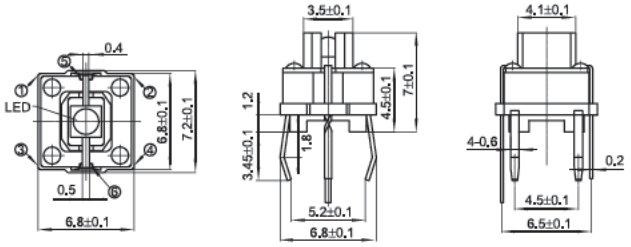
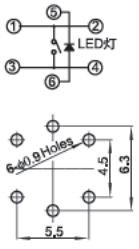
HOW TO ORDER



Specification

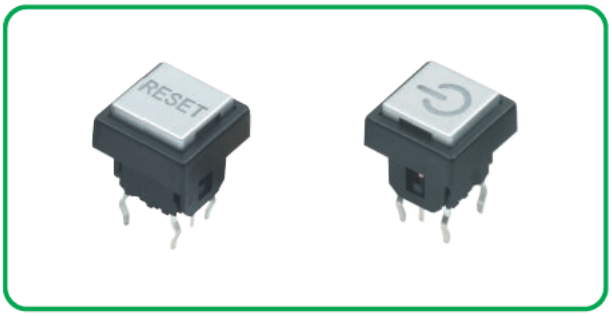
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	100mA. 30V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

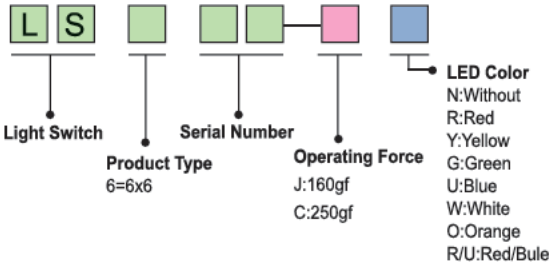
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS611 	

LEAD FREE

RoHS Compliant



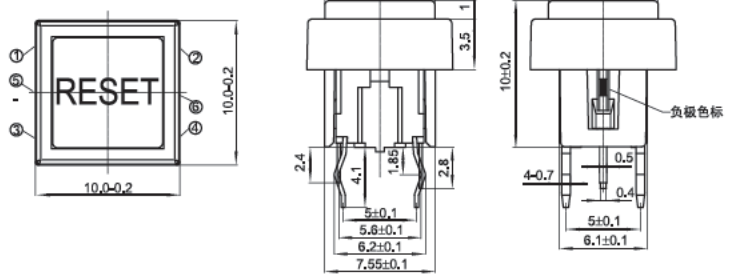
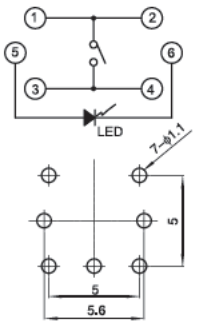
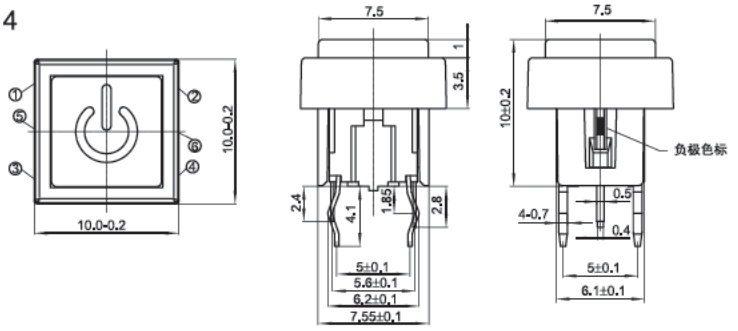
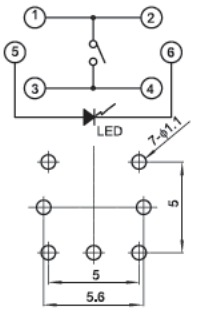
HOW TO ORDER



Specification

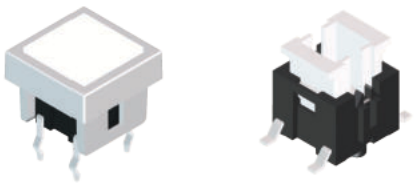
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	100mA. 30V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

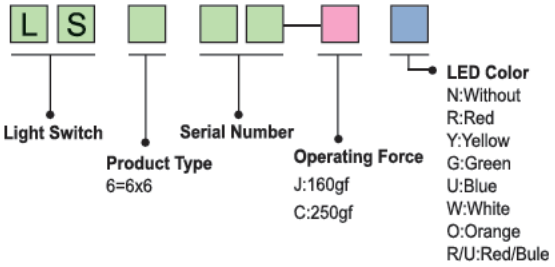
No.	Dimensions	Circuit Diagram Pad Layout
1	● LS613 	
2	● LS614 	

LEAD FREE

RoHS Compliant



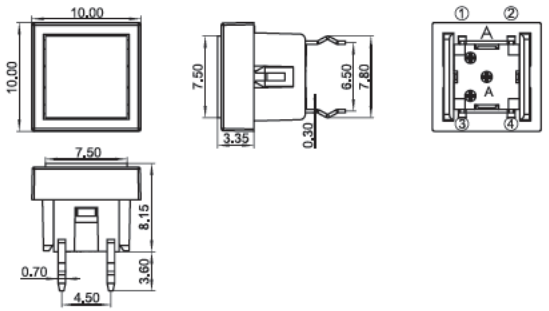
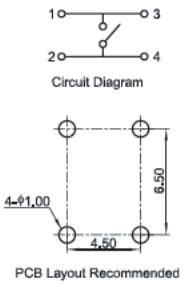
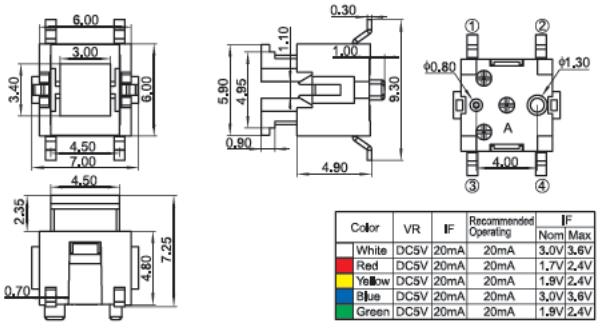
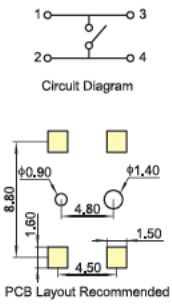
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

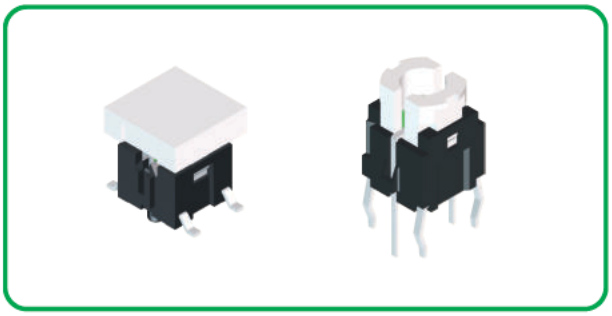
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS615 	
2	● LS616 	

Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LEAD FREE

RoHS Compliant



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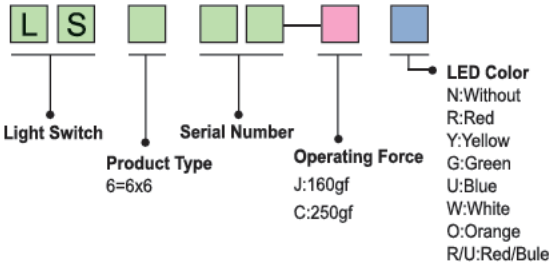
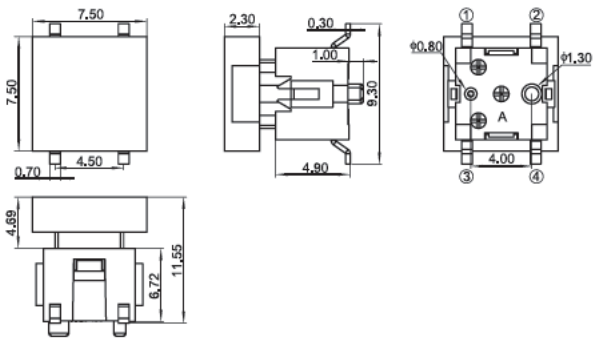
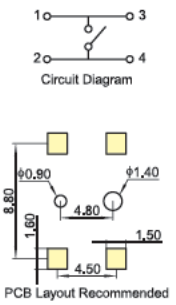
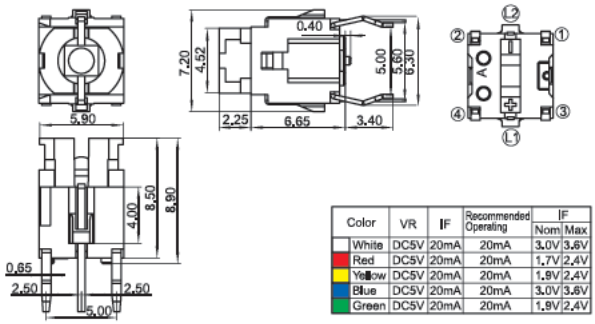
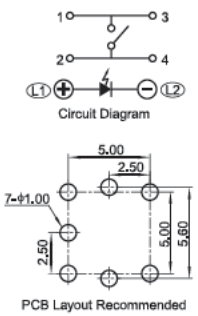


Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

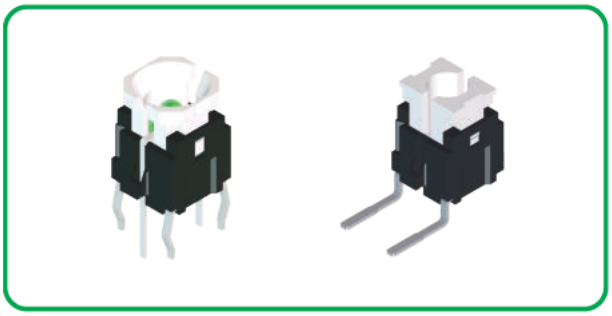
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS617 	
2	● LS618 	

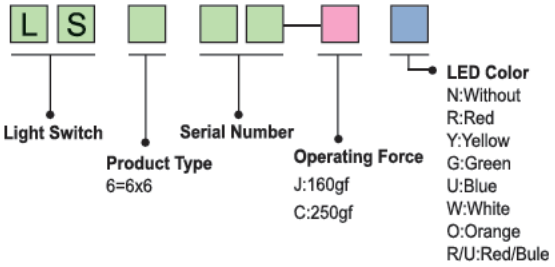
Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LEAD FREE

RoHS Compliant



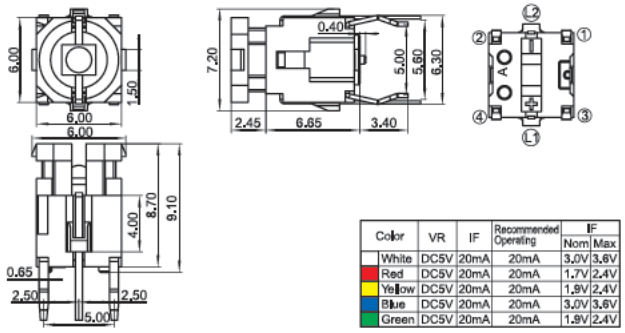
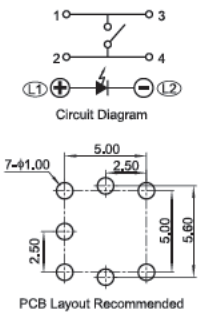
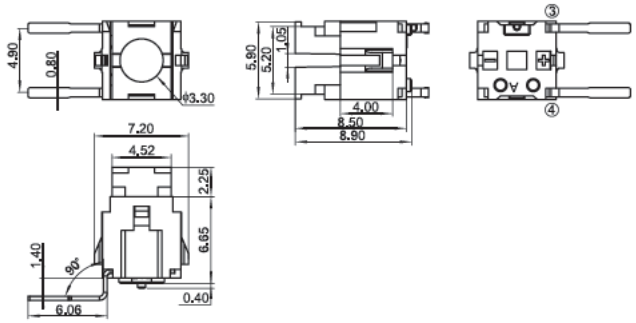
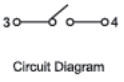
HOW TO ORDER

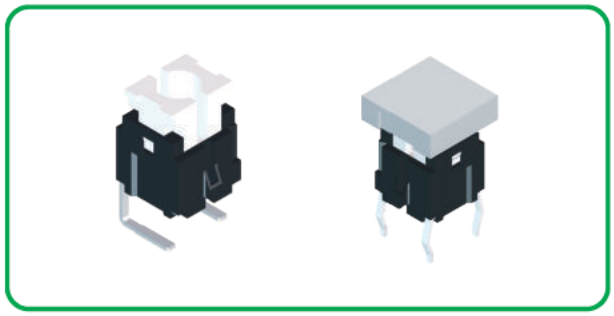


Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS619 	
2	● LS620 	



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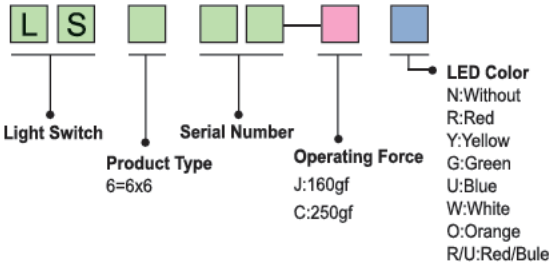
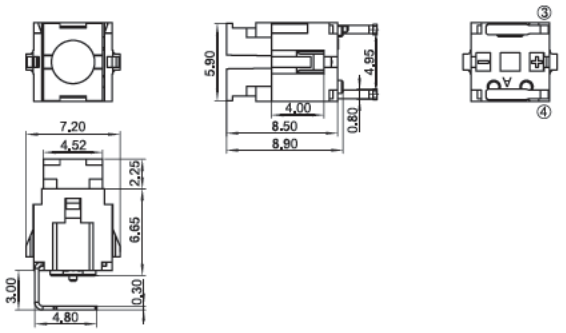
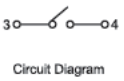
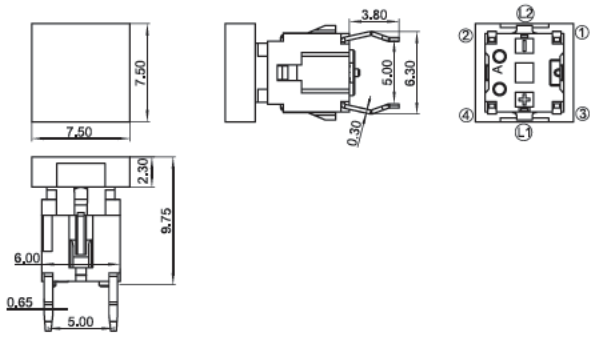
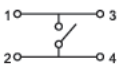
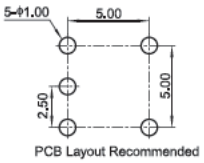
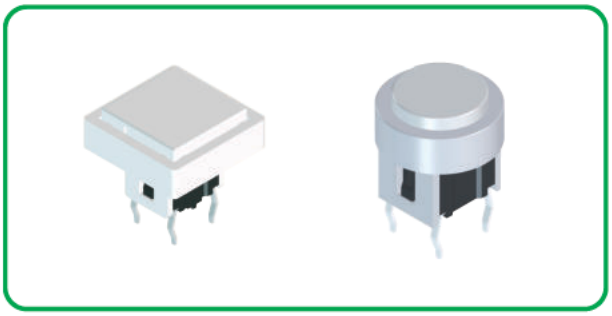


Specification

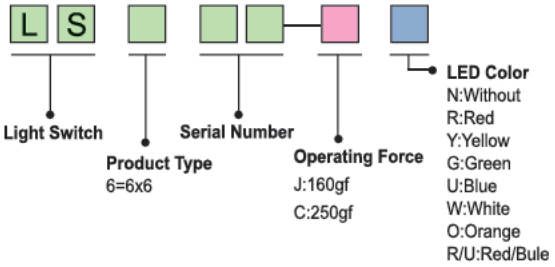
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS621 	 Circuit Diagram
2	● LS622 	 Circuit Diagram  PCB Layout Recommended



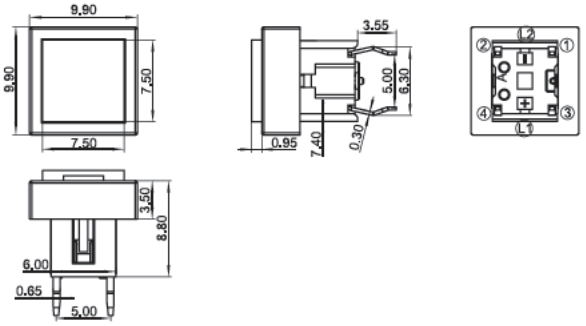
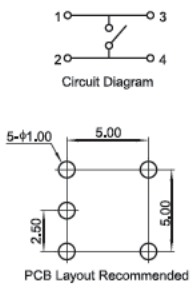
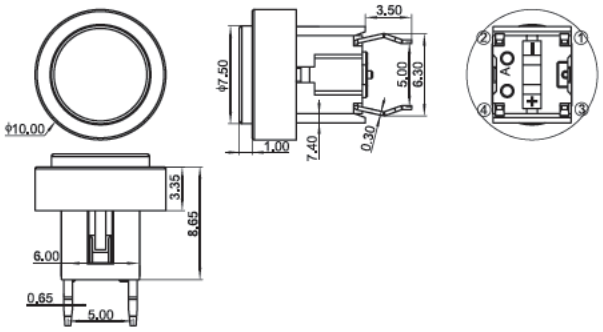
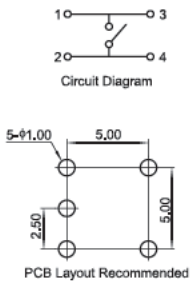
HOW TO ORDER



Specification

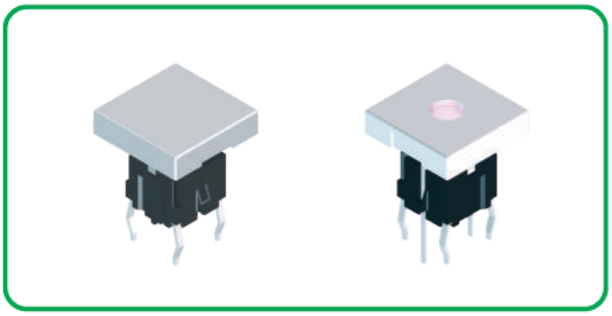
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

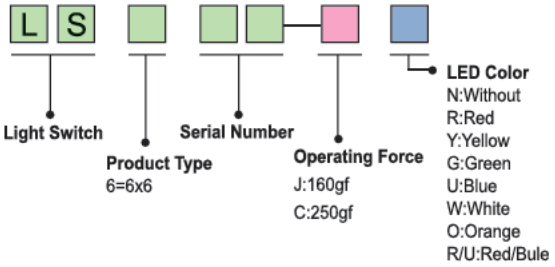
No.	Dimensions	Circuit Diagram Pad Layout
1	● LS623 	
2	● LS624 	

LEAD FREE

RoHS Compliant



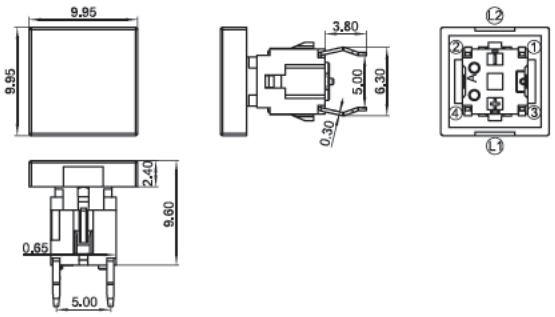
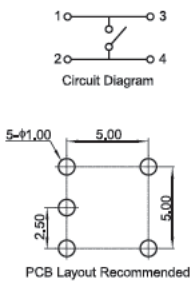
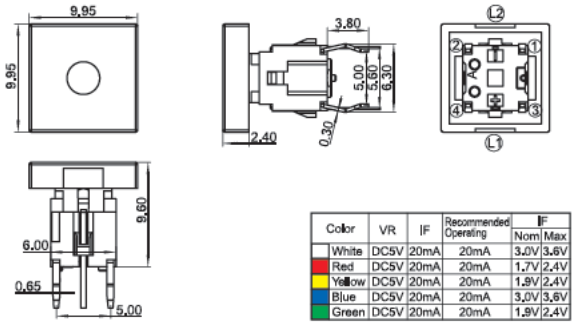
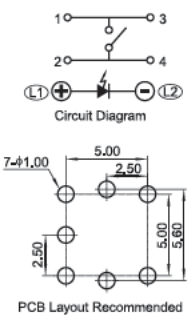
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

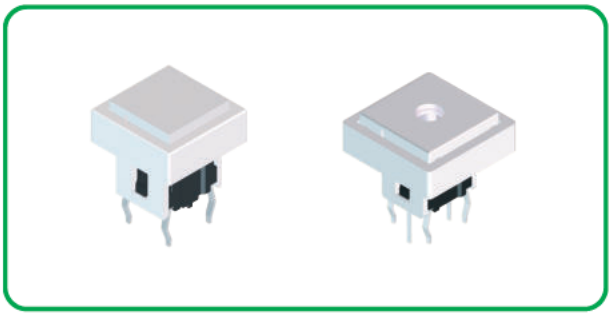
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS625 	
2	● LS626 	

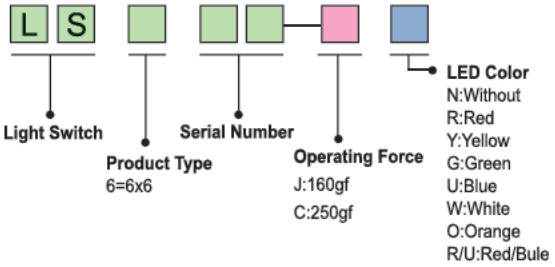
Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LEAD FREE

RoHS Compliant



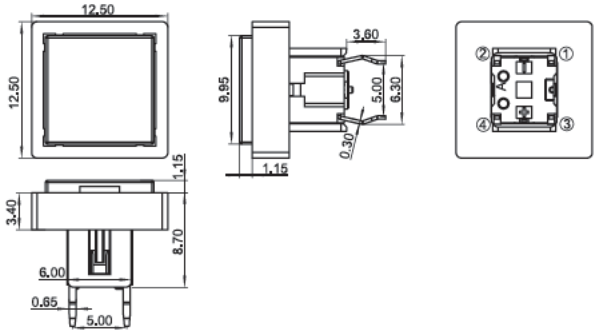
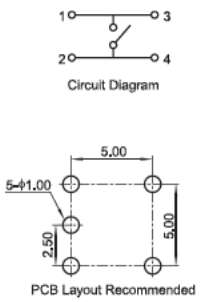
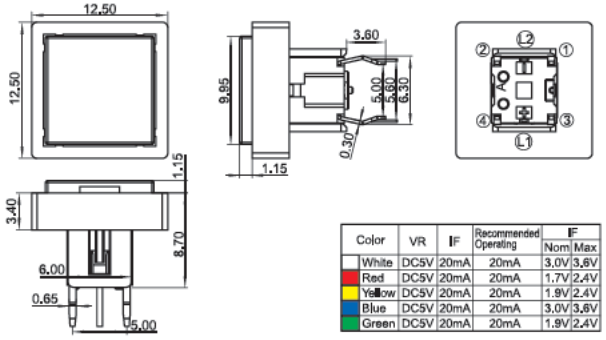
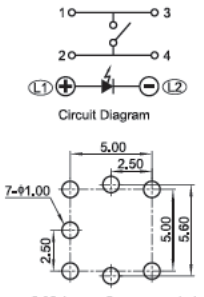
HOW TO ORDER



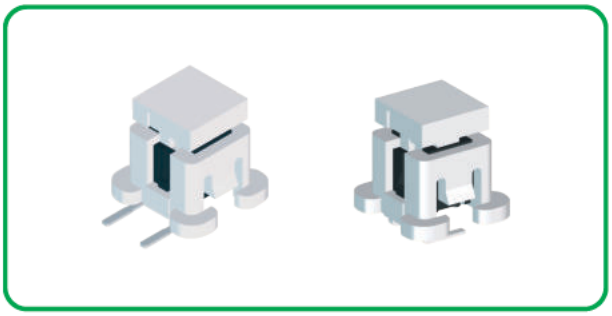
Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

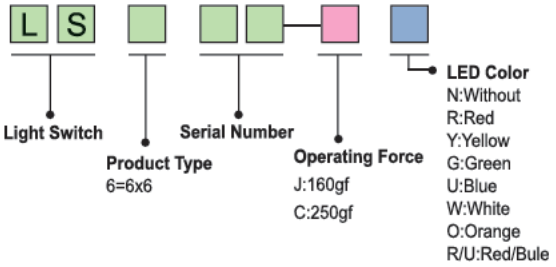
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS627 	
2	● LS628 	

Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V



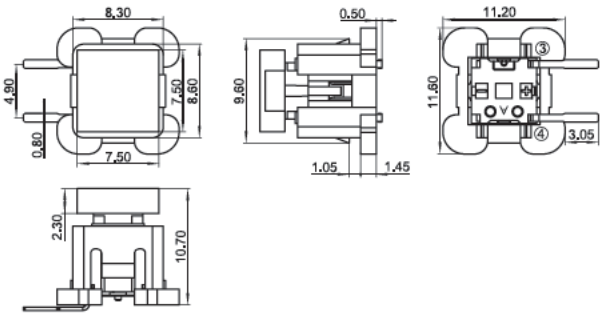
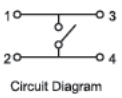
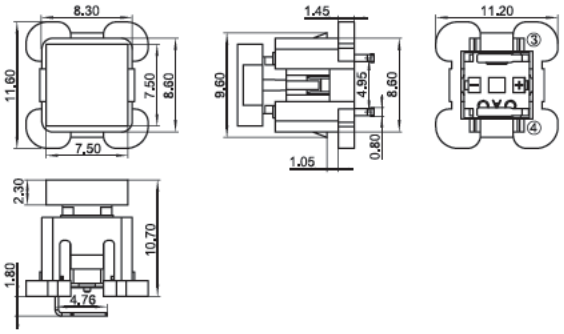
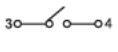
HOW TO ORDER



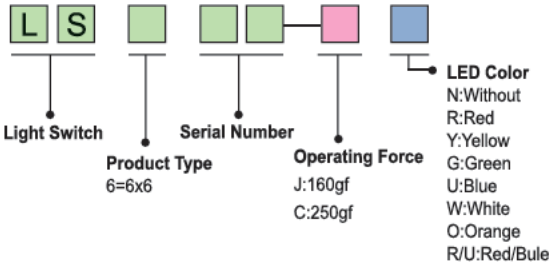
Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● LS629 	 Circuit Diagram
2	● LS630 	 Circuit Diagram

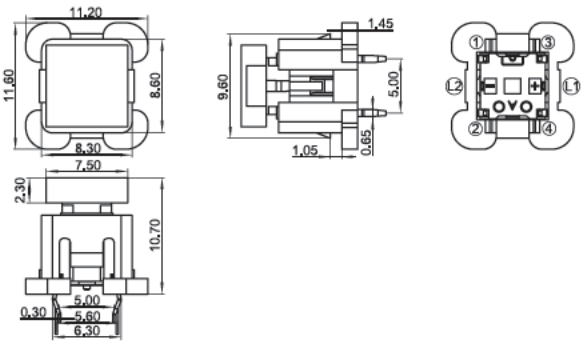
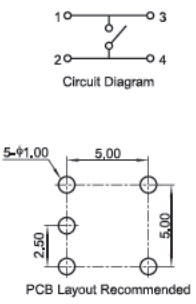
HOW TO ORDER



Specification

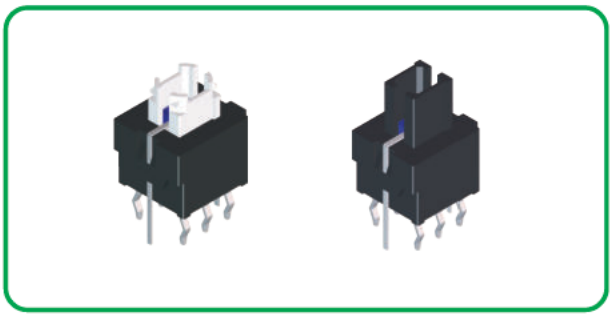
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

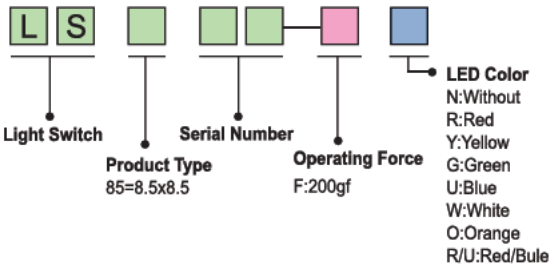
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS631 	

LEAD FREE

RoHS Compliant



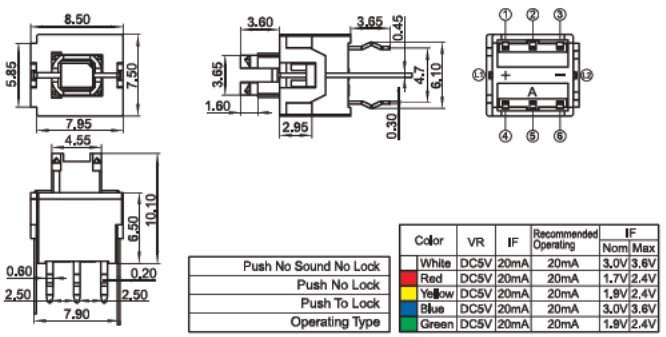
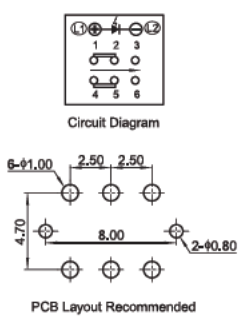
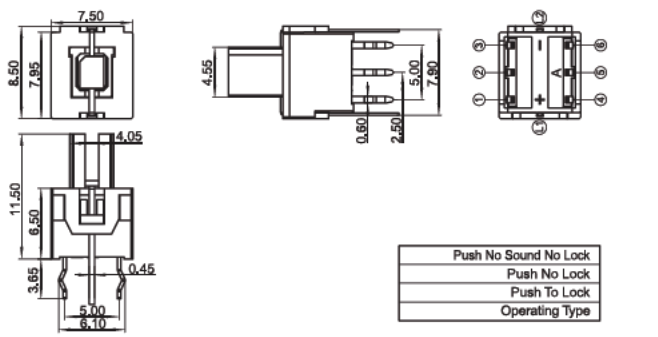
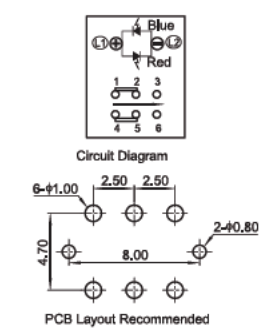
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

Diagram

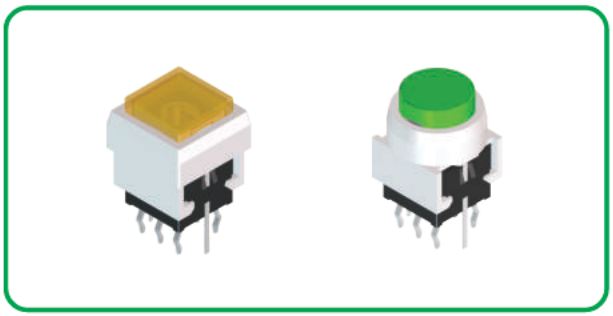
No.	Dimensions	Circuit Diagram Pad Layout
1	● LS8501 	
2	● LS8502 	

LAMP SERIES

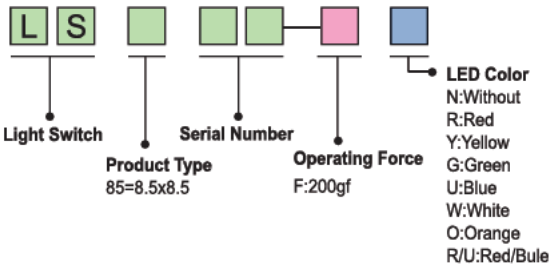
8.5x8.5 Led Built-in Type

LEAD FREE

RoHS Compliant



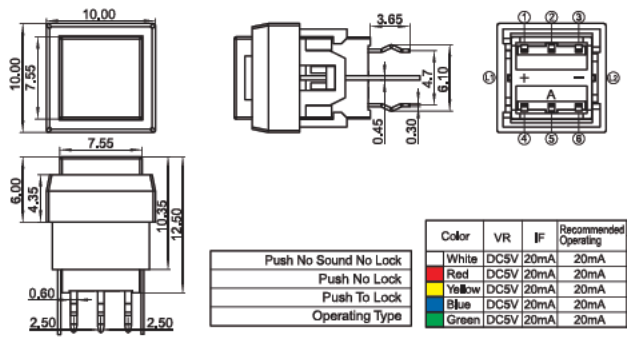
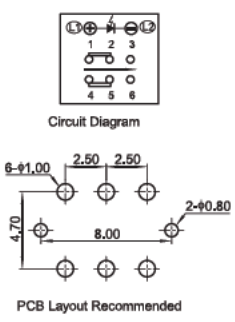
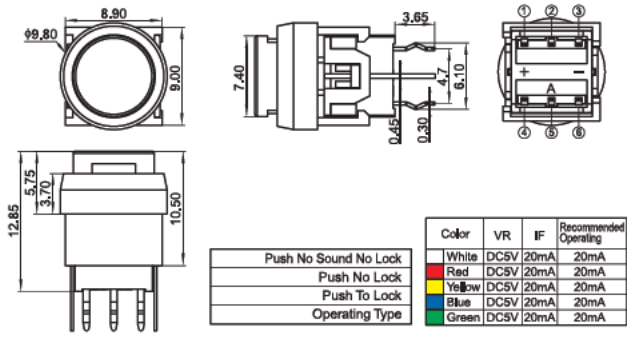
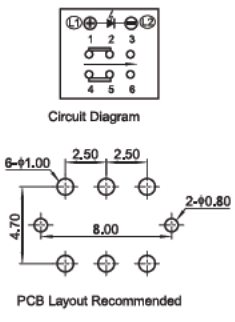
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS8503 	
2	● LS8504 	

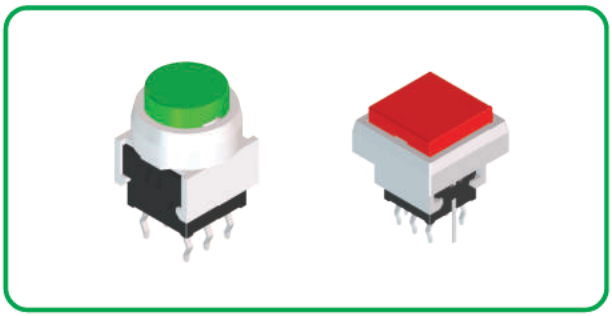
Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LAMP SERIES

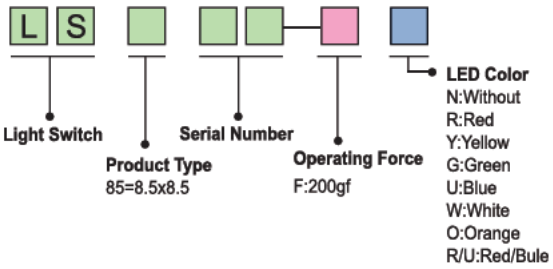
8.5x8.5 Led Built-in Type

LEAD FREE

RoHS Compliant



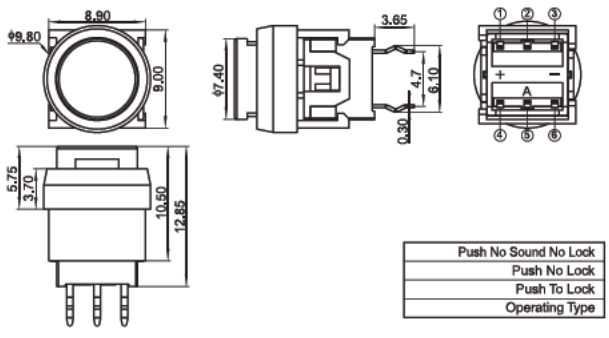
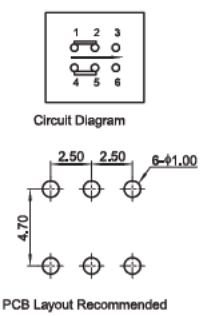
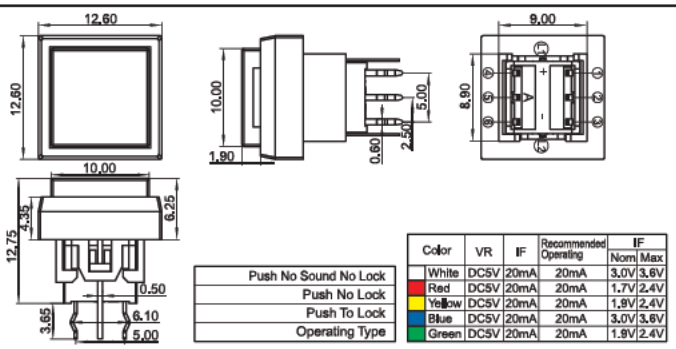
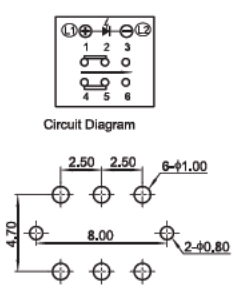
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

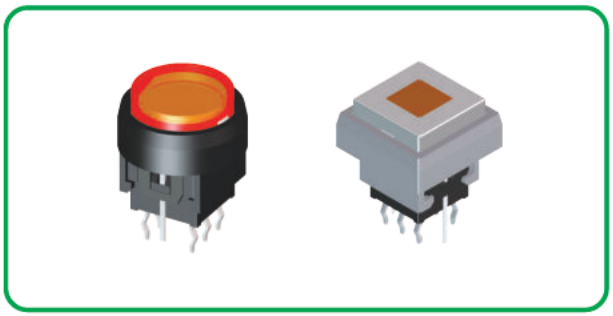
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS8505 	
2	● LS8506 	

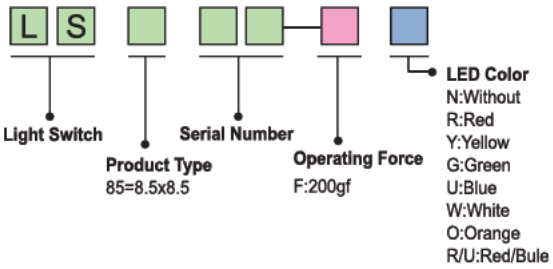
Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LAMP SERIES

8.5x8.5 Led Built-in Type



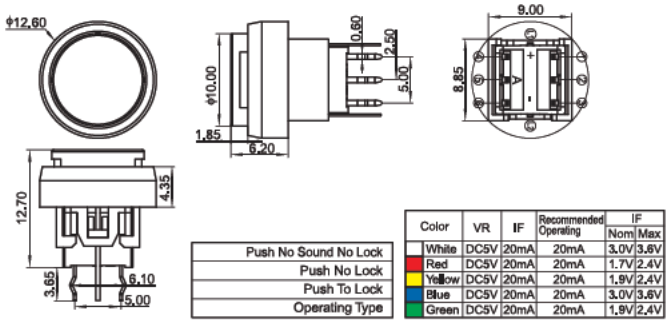
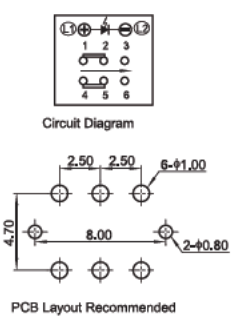
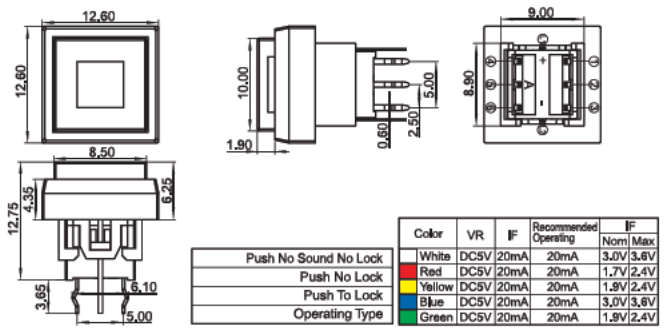
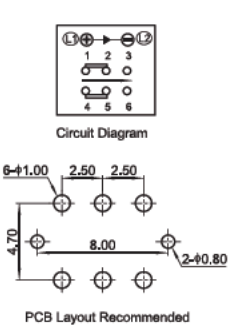
HOW TO ORDER



Specification

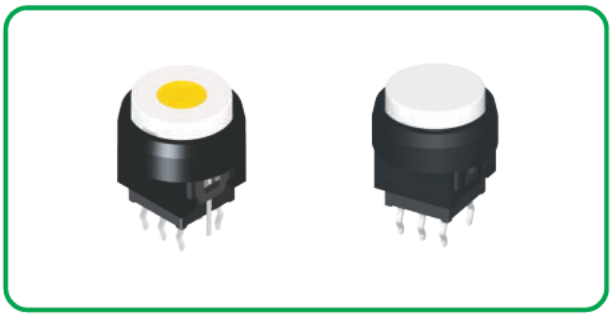
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

Diagram

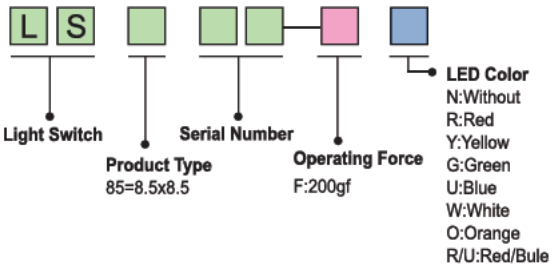
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS8507 	
2	● LS8508 	

LEAD FREE

RoHS Compliant



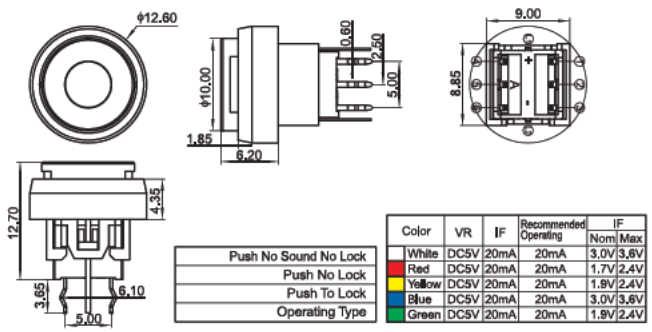
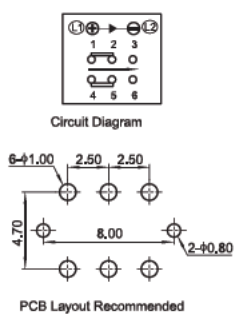
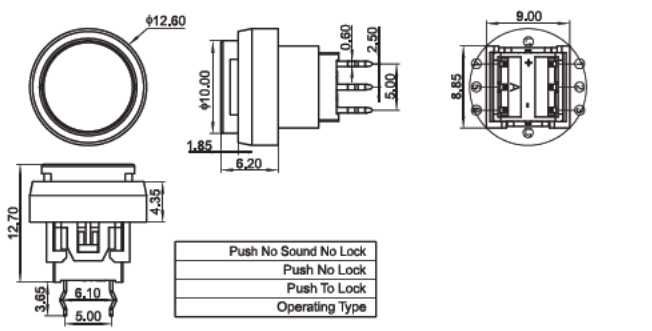
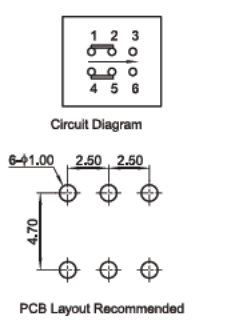
HOW TO ORDER



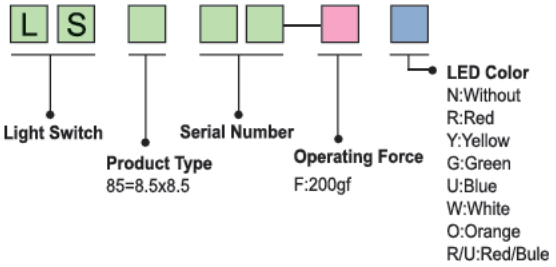
Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS8509 	
2	● LS8510 	

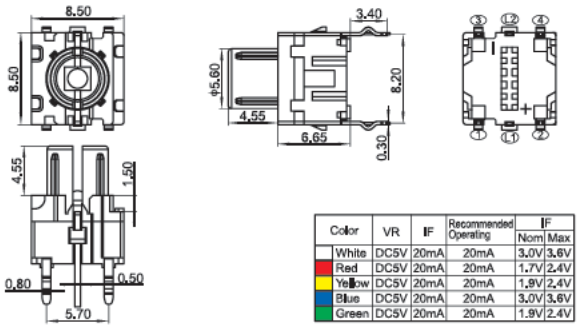
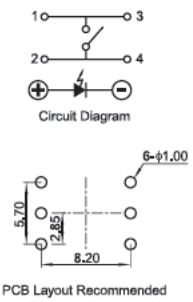
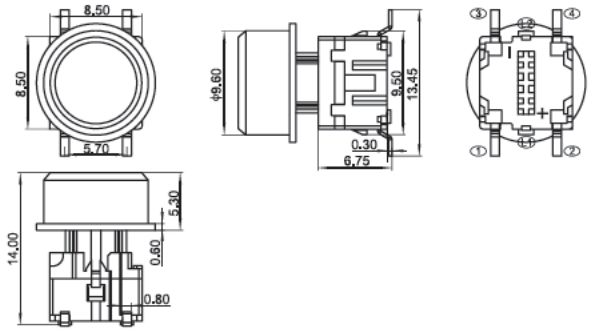
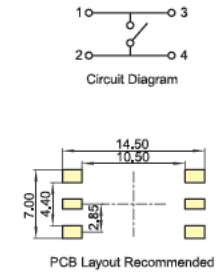
HOW TO ORDER



Specification

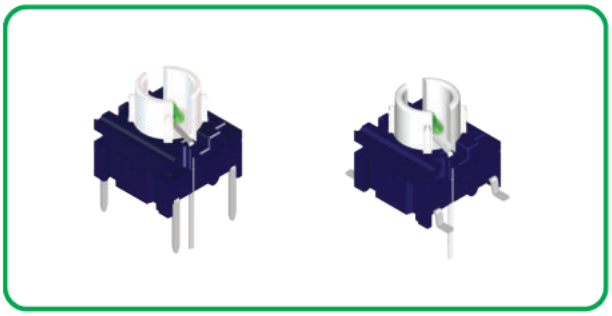
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	50mA. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	300,000 Cycles Min
Mechanical performance	Operating force	200 ± 50gf
	Travel	0.25 ± 0.1mm

Diagram

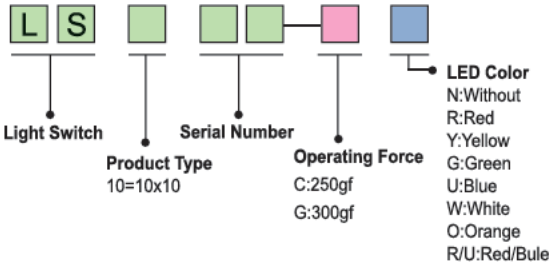
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS8511 	
2	● LS8512 	

LEAD FREE

RoHS Compliant



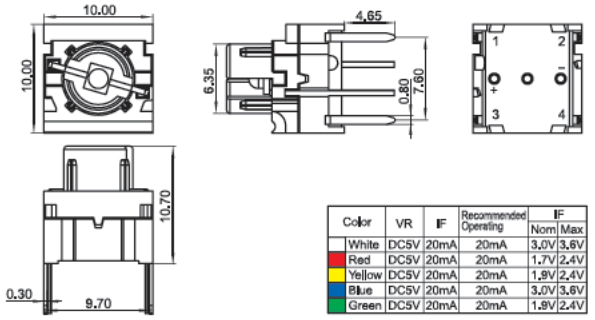
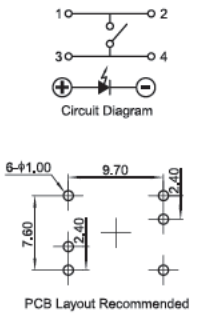
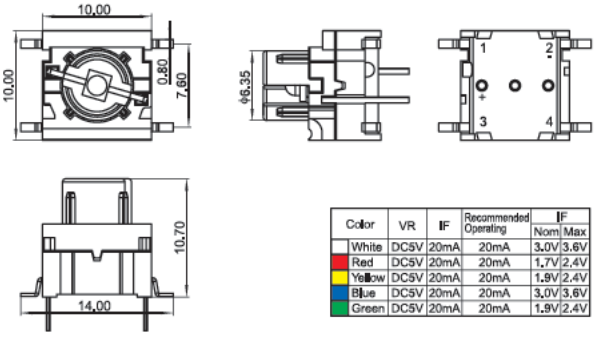
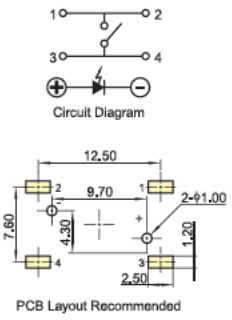
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	0.1A 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	C:250gf G:300gf
	Travel	0.3 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS1001 	
2	● LS1002 	

Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

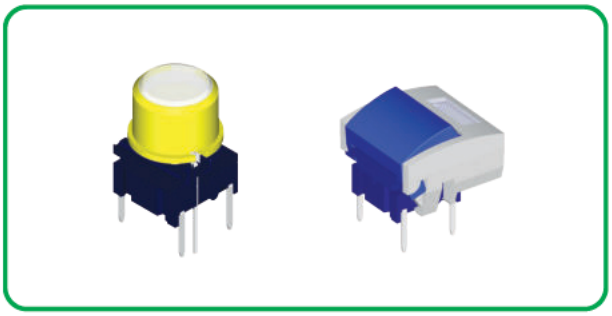
Color	VR	IF	Recommended Operating	IF Nom	IF Max
White	DC5V	20mA	20mA	3.0V	3.6V
Red	DC5V	20mA	20mA	1.7V	2.4V
Yellow	DC5V	20mA	20mA	1.9V	2.4V
Blue	DC5V	20mA	20mA	3.0V	3.6V
Green	DC5V	20mA	20mA	1.9V	2.4V

LAMP SERIES

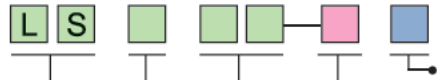
10x10 Led Built-in Type

LEAD FREE

RoHS Compliant



HOW TO ORDER

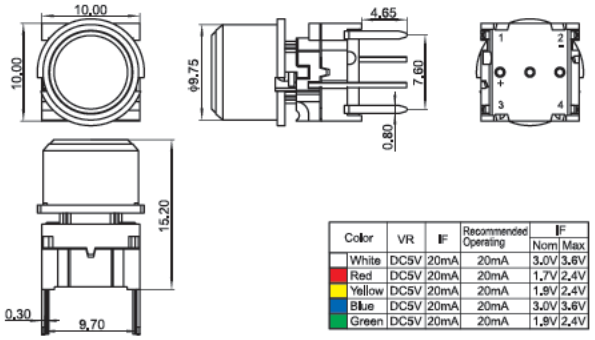
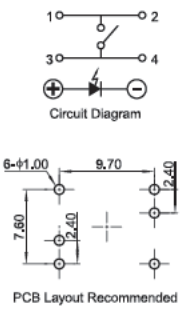
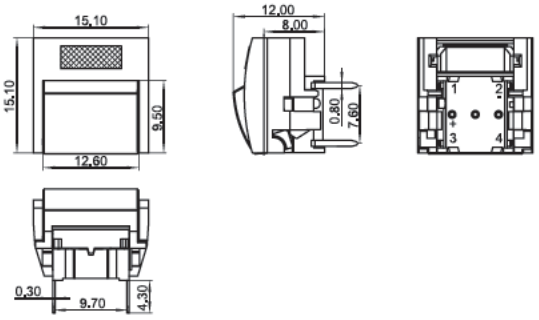
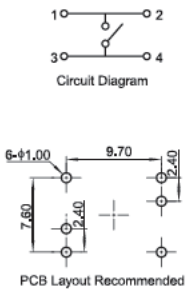


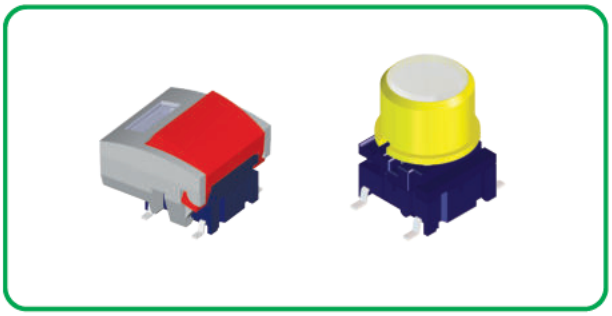
- Light Switch
- Product Type: 10=10x10
- Serial Number
- Operating Force: C:250gf, F:300gf
- LED Color: N:Without, R:Red, Y:Yellow, G:Green, U:Blue, W:White, O:Orange, R/U:Red/Bule

Specification

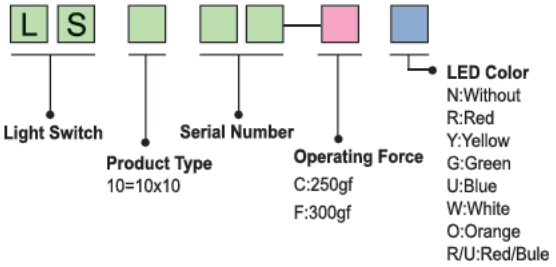
Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	0.1A. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	C:250gf F:300gf
	Travel	0.3 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS1003 	
2	● LS1004 	



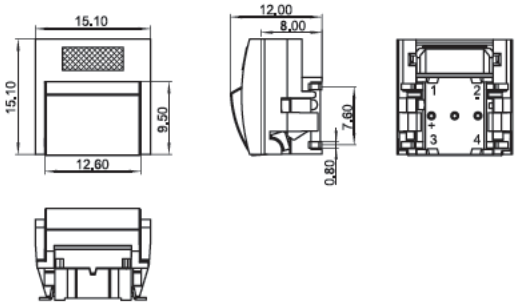
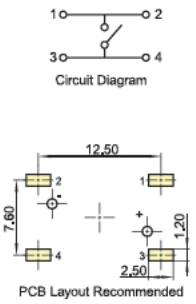
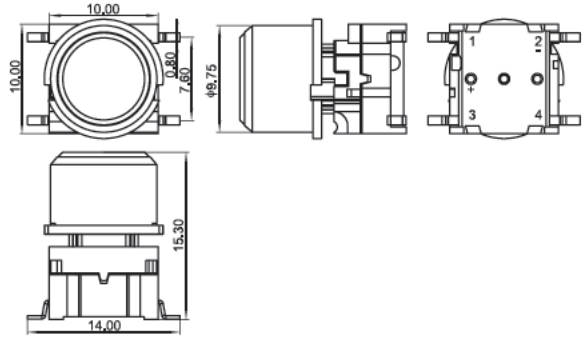
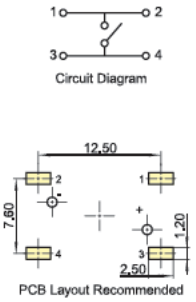
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	0.1A. 30V DC
	Insulation resistance	100MΩ min. 250V DC
	Dielectric strength	AC250V(50-60Hz) for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	C:250gf F:300gf
	Travel	0.3 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS1005 	
2	● LS1006 	

LEAD FREE

RoHS Compliant

HOW TO ORDER

L S

- Light Switch
- Product Type: 12=12x12
- Serial Number
- Operating Force: J:160gf, C:250gf
- LED Color: N:Without, R:Red, Y:Yellow, G:Green, U:Blue, W:White, O:Orange

Specification

Items		Standard
Operating temperature range		-10℃ to +60℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.3 ± 0.1mm

LED Data

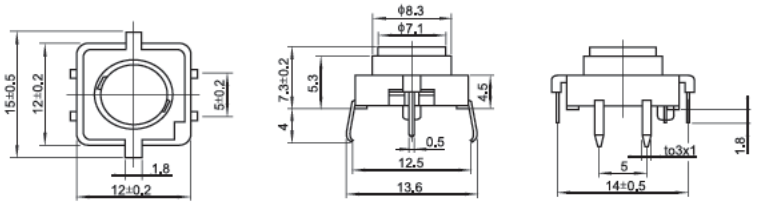
Peak Perverse Voltage	See ordering guide
Max.Forward Current	20mA

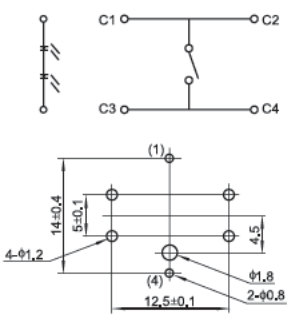
Color	IF Forward Direct Current (mA)
Yellow	25
Red	25
Green	25

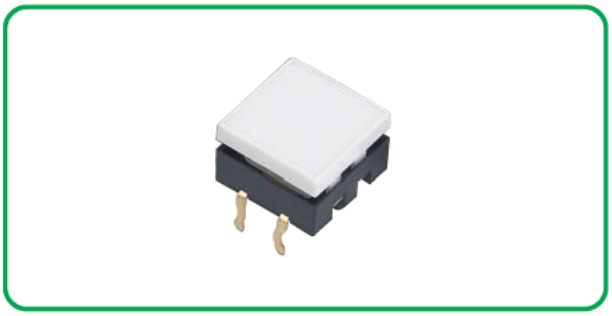
VF Forward Voltage (v) TYP.	NN Peak Emission Wavelength(nm)
4.2	630
4.2	565
4.2	589

Diagram

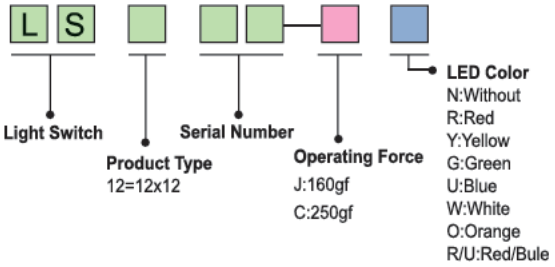
No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS1201	







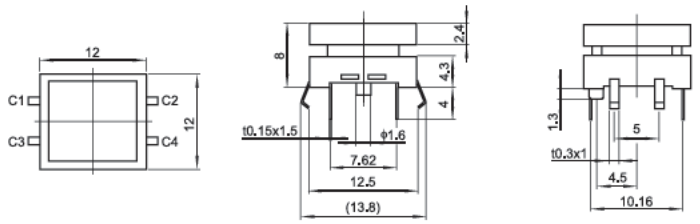
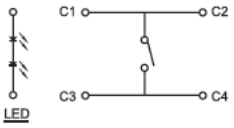
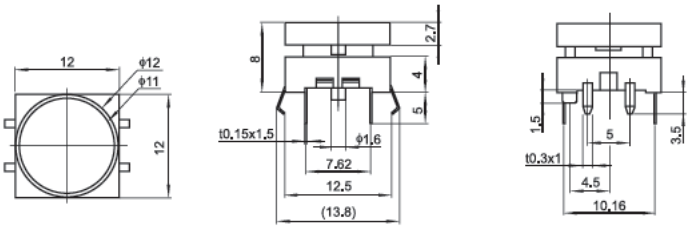
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	100mA. 30V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.3 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● LS1202 	
2	● LS1203 	

InterElcom

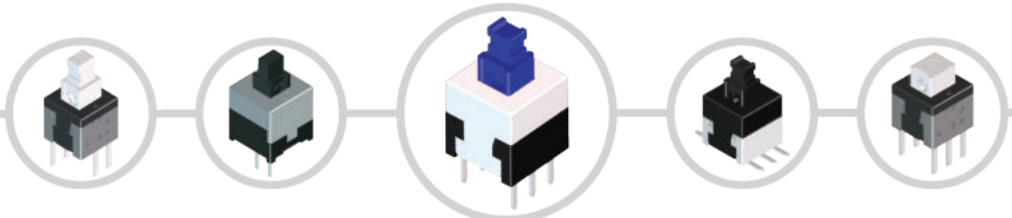
04 PUSH SWITCH SERIES

Features:

- There are many dimensions available, such as:
- The switch sounds silvery, feeling and rhythm are perfect.
- Contact ways: SPDT & DPDT.
- There are 2 operating modes: Self-Lock and Non-Lock.
- The state of terminals and height of pushbutton can be designed according to customer's requirements.

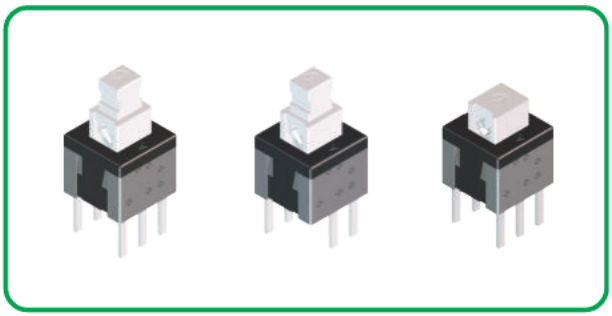
Applications:

The push button switches can operate computer ancillary equipment, TV, audio equipment, all kinds of small autoimmunization equipment and instruments etc.



PUSH BUTTON SERIES

5.8x5.8 Push Switch



HOW TO ORDER

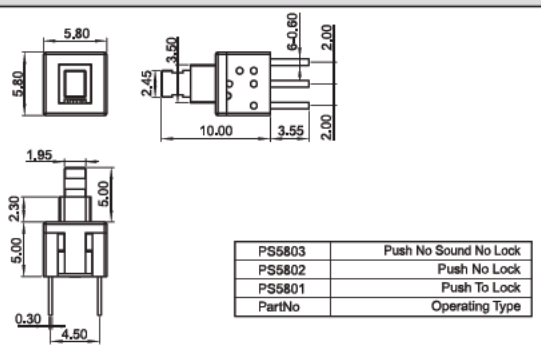
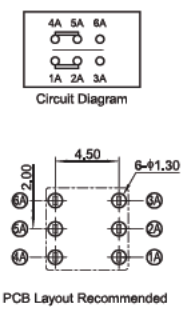
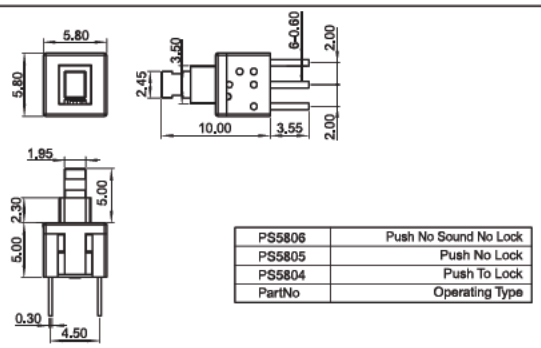
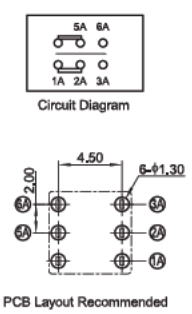
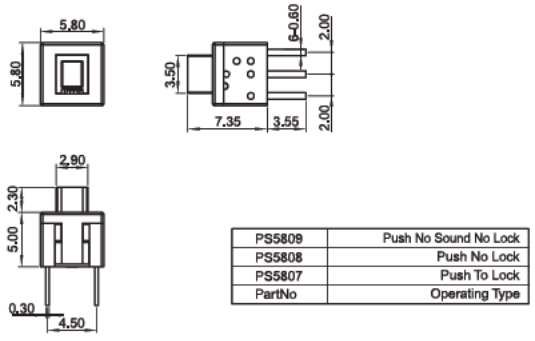
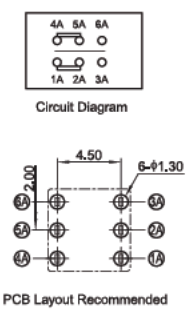
P	S	5	8	0	1	□	■

- PS: Push Switch
- 58: Product Type, 58=5.8x5.8
- 01: Serial Number
- □: Operating Force, □:180gf
- ■: Each Part Color, □:Guide/Cover/Base

Specification

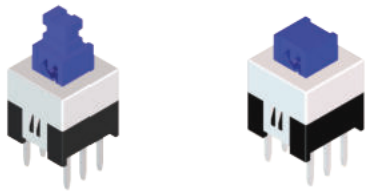
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		180gf

Diagram

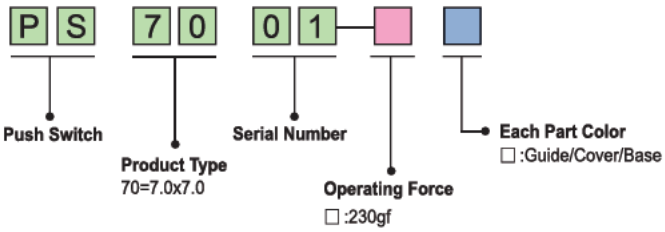
No.	Dimensions	Circuit Diagram
1	● PS5801  PS5803 Push No Sound No Lock PS5802 Push No Lock PS5801 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended
2	● PS5804  PS5806 Push No Sound No Lock PS5805 Push No Lock PS5804 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended
3	● PS5807  PS5809 Push No Sound No Lock PS5808 Push No Lock PS5807 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended

PUSH BUTTON SERIES

7x7 Push Switch



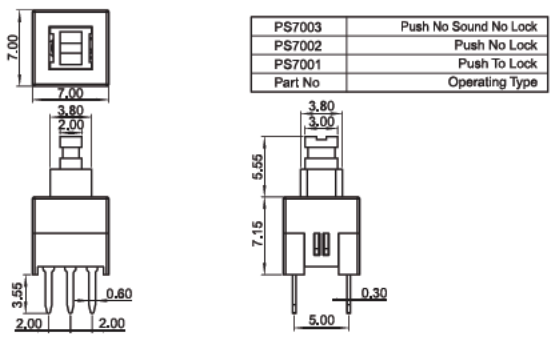
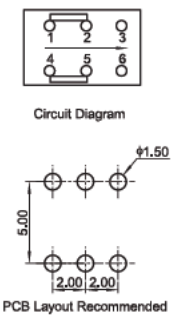
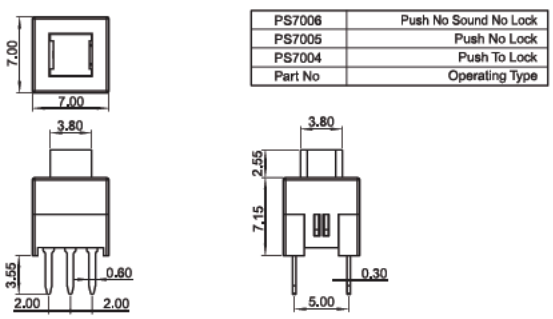
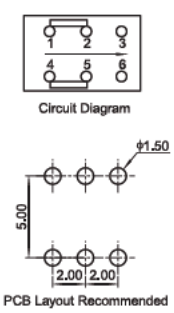
HOW TO ORDER

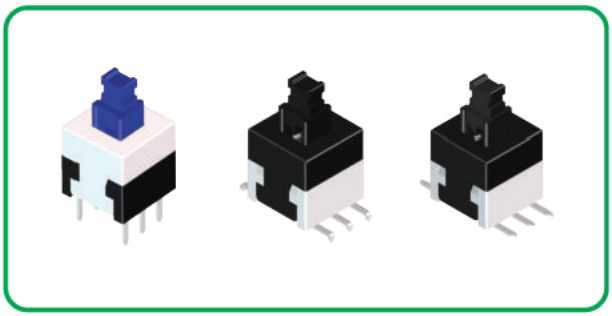


Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		230gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS7001 	
2	● PS7004 	



HOW TO ORDER

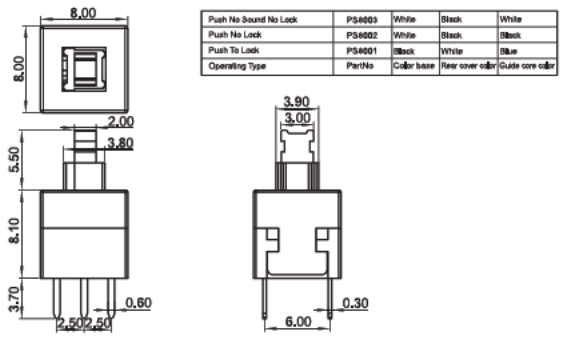
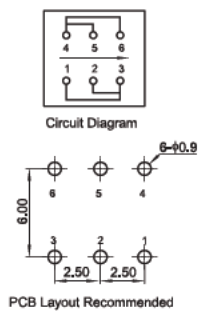
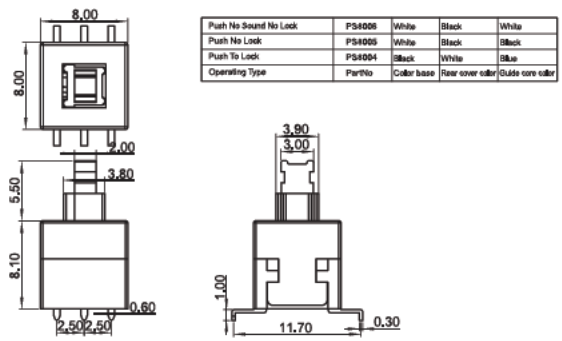
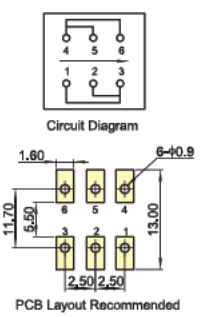
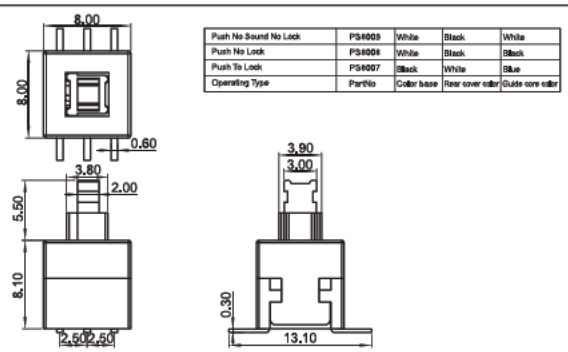
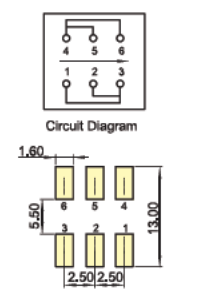
P	S	8	0	0	1	□

- PS: Push Switch
- 80: Product Type (80=8.0x8.0)
- 01: Serial Number
- □: Operating Force (□:180gf)

Specification

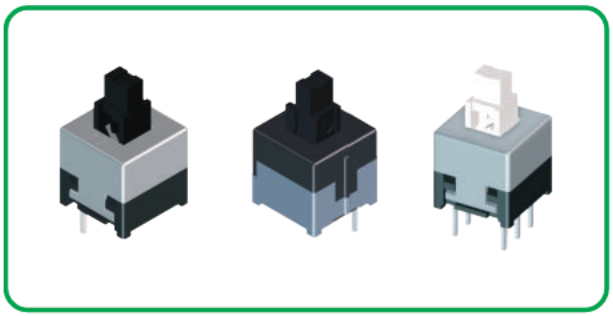
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		180gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS8001 	
2	● PS8004 	
3	● PS8007 	

PUSH BUTTON SERIES

8.45x8.45 Push Switch



HOW TO ORDER

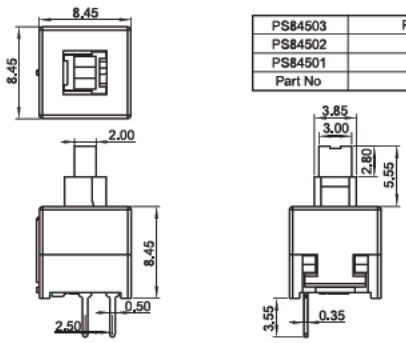
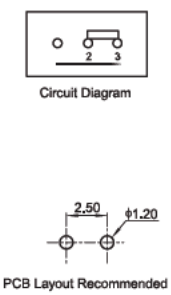
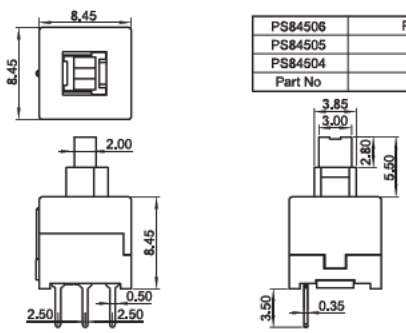
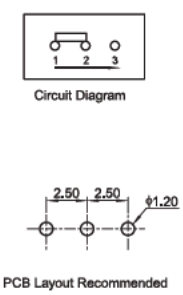
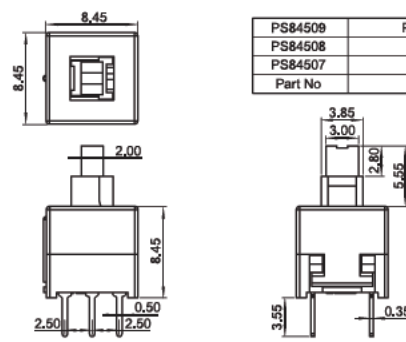
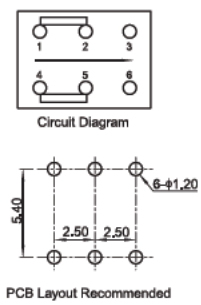
P S | 8 4 5 | 0 1 | ☐ | ☐ | N

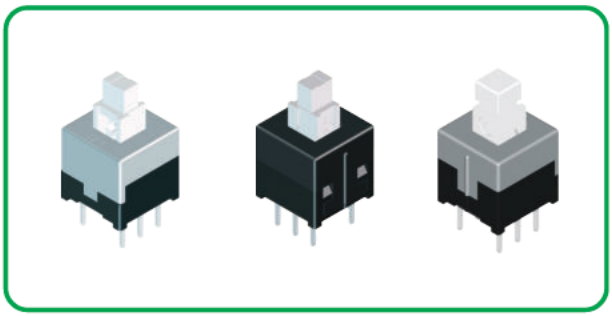
- **Push Switch**
- **Product Type** 845=8.45x8.45
- **Serial Number**
- **Operating Force** F:200gf C:240gf
- **Each Part Color** ☐:Guide/Cover/Base 2:Guide//Cover/Base 3:Guide//Cover/Base
- **Stem Type** ☐:With Groove N:Non Groove

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	500V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		F:200gf C:240gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS84501  PS84503 Push No Sound No Lock; PS84502 Push No Lock; PS84501 Push To Lock; Part No Operating Type	
2	● PS84504  PS84506 Push No Sound No Lock; PS84505 Push No Lock; PS84504 Push To Lock; Part No Operating Type	
3	● PS84507  PS84509 Push No Sound No Lock; PS84508 Push No Lock; PS84507 Push To Lock; Part No Operating Type	



HOW TO ORDER

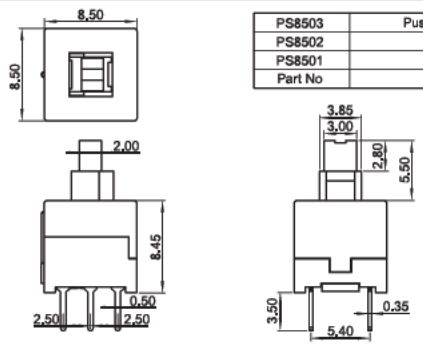
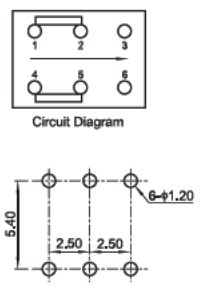
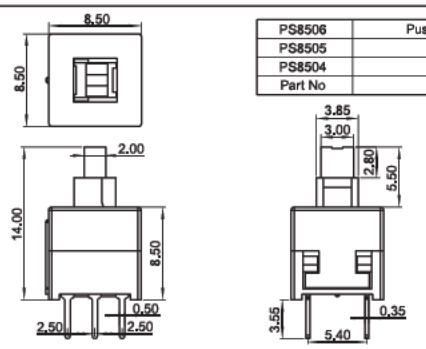
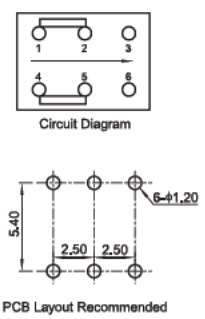
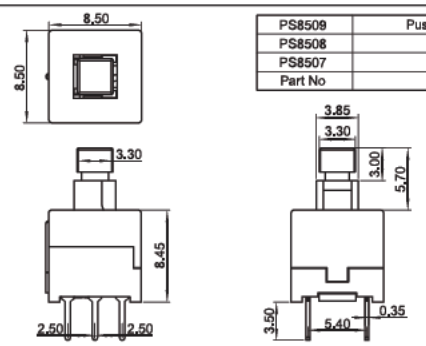
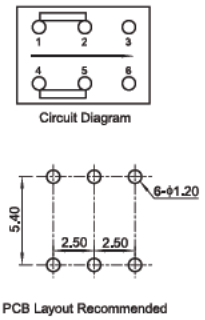
P S | 8 5 | 0 1 | ☐ | ☐

- P S — Push Switch
- 8 5 — Product Type: 85=8.5x8.5
- 0 1 — Serial Number
- ☐ — Operating Force: ☐:240gf
- ☐ — Each Part Color: ☐:Guide//Cover/Base; 2:Guide//Cover/Base; 3:Guide//Cover/Base

Specification

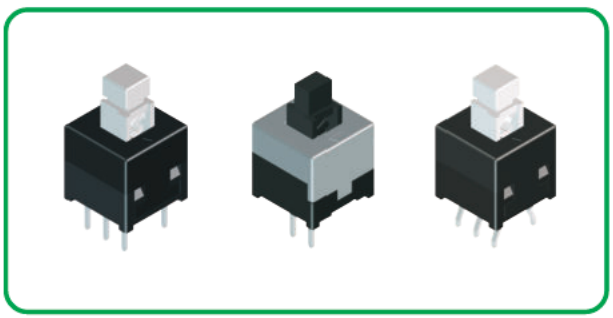
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	500V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		240gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS8501 	
2	● PS8504 	
3	● PS8507 	

PUSH BUTTON SERIES

8.5x8.5 Push Switch



HOW TO ORDER

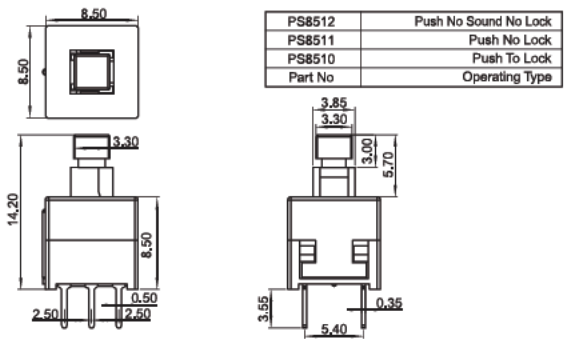
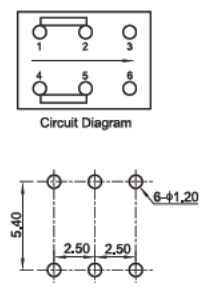
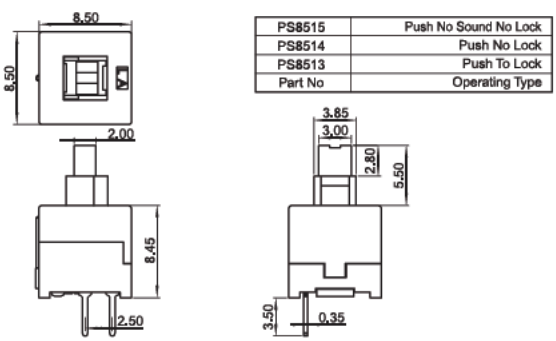
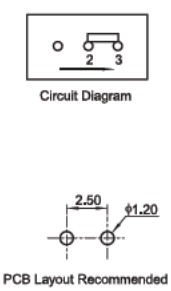
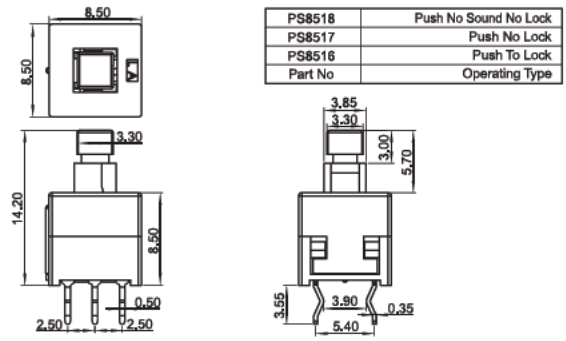
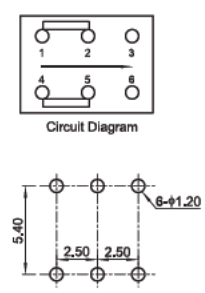
P	S	8	5	0	1	□	■

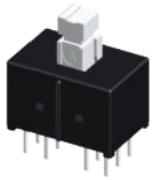
- **Push Switch**
- **Product Type** 85=8.5x8.5
- **Serial Number**
- **Operating Force** □ :240gf
- **Each Part Color** □ :Guide//Cover/Base; 2:Guide//Cover/Base; 3:Guide//Cover/Base

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	500V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		240gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS8510  PS8512 Push No Sound No Lock PS8511 Push No Lock PS8510 Push To Lock Part No Operating Type	
2	● PS8513  PS8515 Push No Sound No Lock PS8514 Push No Lock PS8513 Push To Lock Part No Operating Type	
3	● PS8516  PS8518 Push No Sound No Lock PS8517 Push No Lock PS8516 Push To Lock Part No Operating Type	



HOW TO ORDER

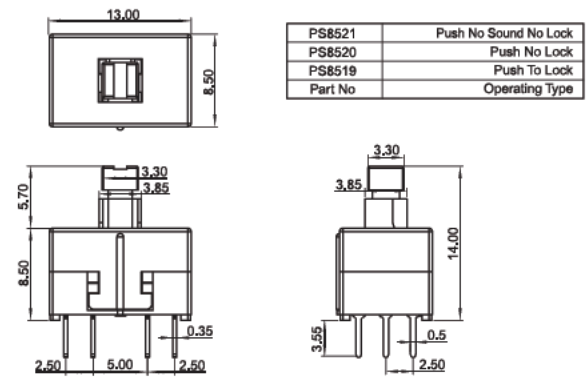
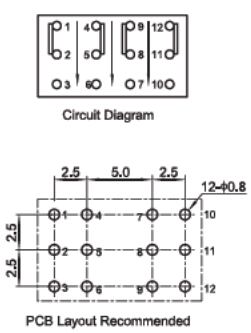
P S 8 5 0 1 □ □

- P S — Push Switch
- 8 5 — Product Type: 85=8.5x8.5
- 0 1 — Serial Number
- □ — Operating Force: □ :240gf
- □ — Each Part Color: □ :Guide//Cover/Base; 2:Guide//Cover/Base; 3:Guide//Cover/Base

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	500V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		240gf

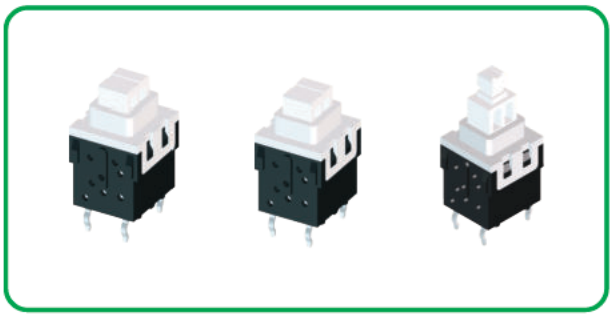
Diagram

No.	Dimensions	Circuit Diagram
1	● PS8519 	

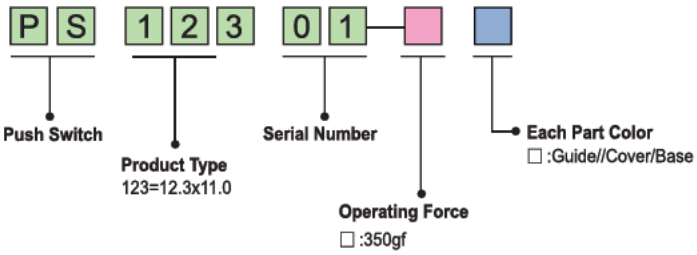
Part No	Operating Type
PS8521	Push No Sound No Lock
PS8520	Push No Lock
PS8519	Push To Lock

PUSH BUTTON SERIES

12x12 Push Switch



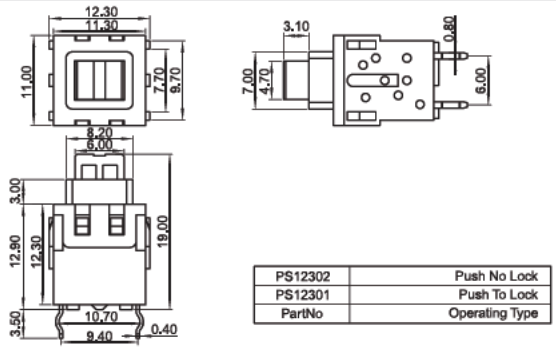
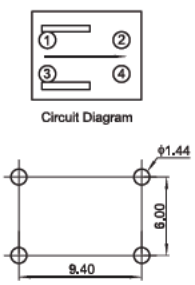
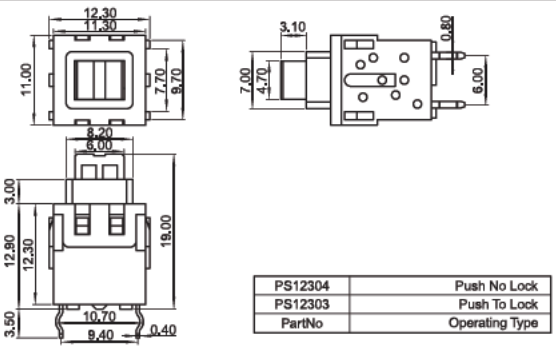
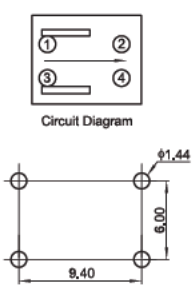
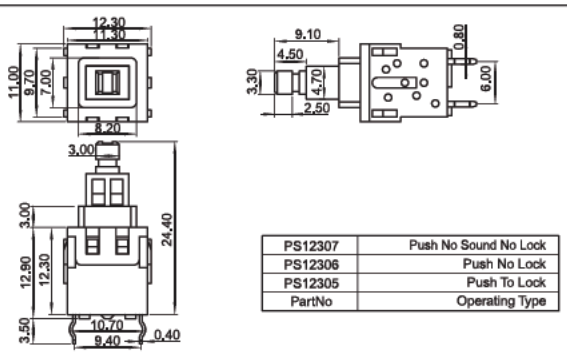
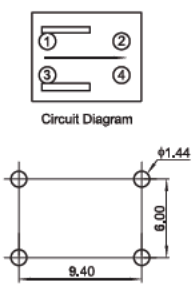
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	10mA. 30V DC
	Insulation resistance	100MΩ min. 500V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	10,000 Cycles min.
Operating force		350gf

Diagram

No.	Dimensions	Circuit Diagram
1	● PS12301  PS12302 Push No Lock PS12301 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended
2	● PS12303  PS12304 Push No Lock PS12303 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended
3	● PS12305  PS12307 Push No Sound No Lock PS12306 Push No Lock PS12305 Push To Lock PartNo Operating Type	 Circuit Diagram PCB Layout Recommended

InterElcom

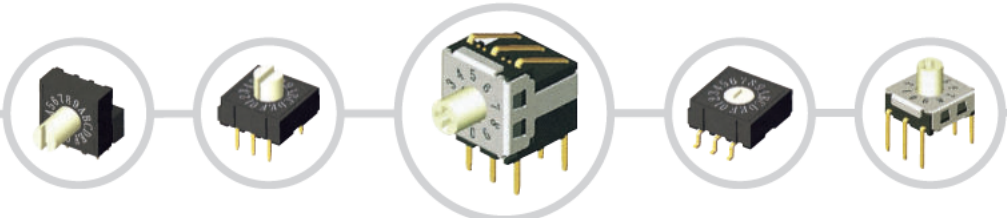
ROTARY CODED SWITCH SERIES 05

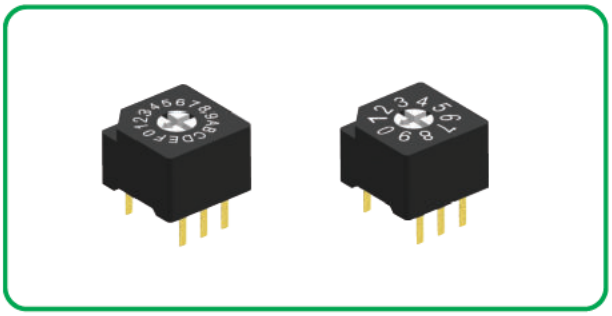
Features:

- Molded-in terminals and fully sealed construction.
- All plastics are UL 94V-0 grade fire retardant.
- Reliable contact and long-term stability.
- Binary decimal (8 or 10 positions) and hexadecimal (16 positions), real andcomplementary codes available.
- Pin-out is compatible with most of current equivalents.
- Gold plated contact to ensure low contact resistance.

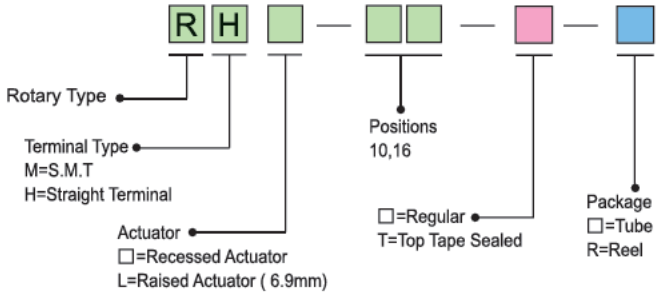
Applications:

- Address switching applications.
- Data storage devices.
- Computer and peripherals.
- Instrumentation.





HOW TO ORDER

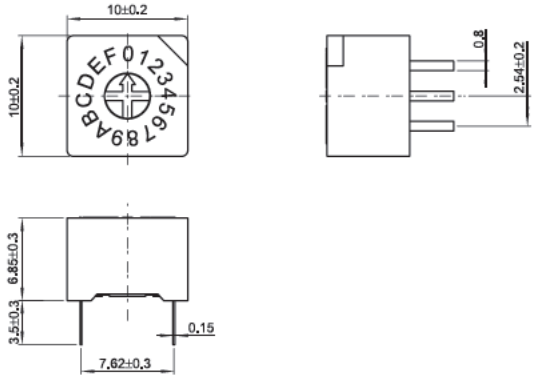
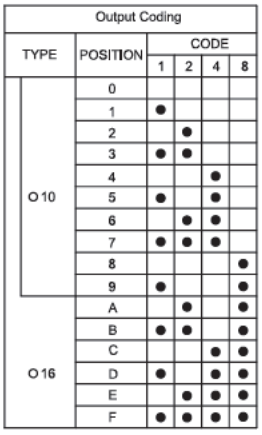
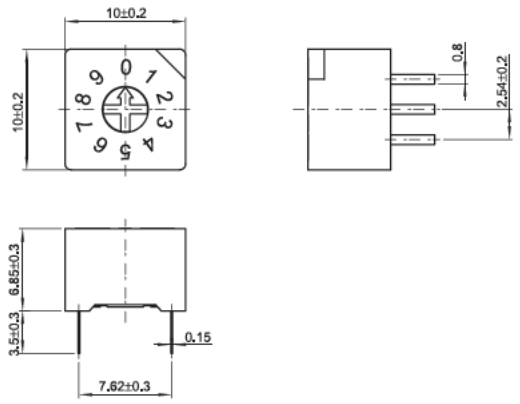
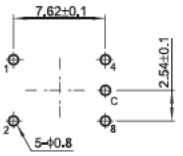


Specification

Items		Standard
Environmental	Operation Temperature Range	-25℃ to +70℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 Steps
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	500gf-cm max

Package
Tube:50pcs/tube

Diagram

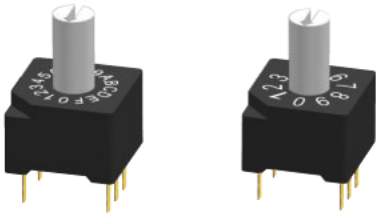
No.	Dimensions	Circuit Diagram / Pad Layout
1	● RH-16 	
2	● RH-10 	

Output Coding

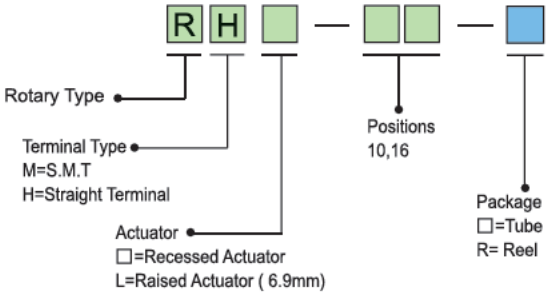
TYPE	POSITION	CODE 1	2	4	8
O10	0				
	1	●			
	2		●		
	3	●	●		
	4			●	
	5	●		●	
	6		●	●	
	7	●	●	●	
	8				●
	9	●			●
O16	A		●		●
	B	●	●		●
	C			●	●
	D	●		●	●
	E		●	●	●
	F	●	●	●	●

LEAD FREE

RoHS Compliant



HOW TO ORDER



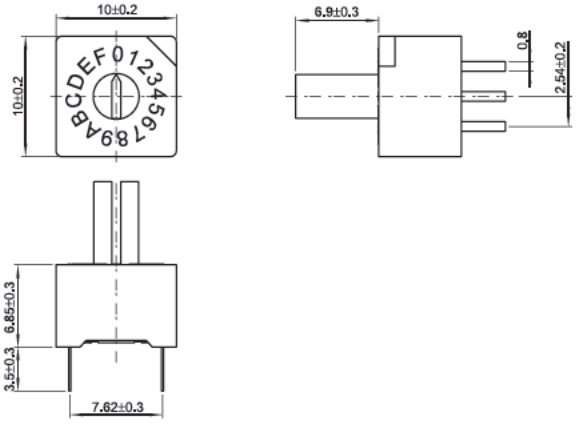
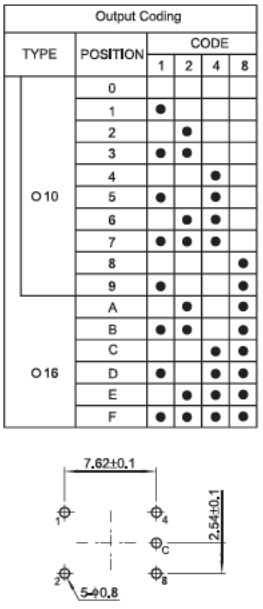
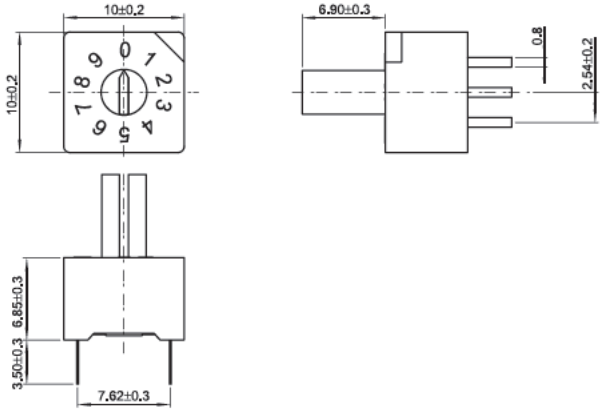
Specification

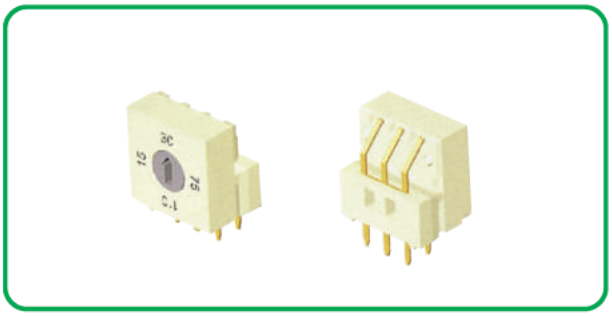
Items		Standard
Environmental	Operation Temperature Range	-25℃ to +70℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 Steps
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	500gf-cm max

Package

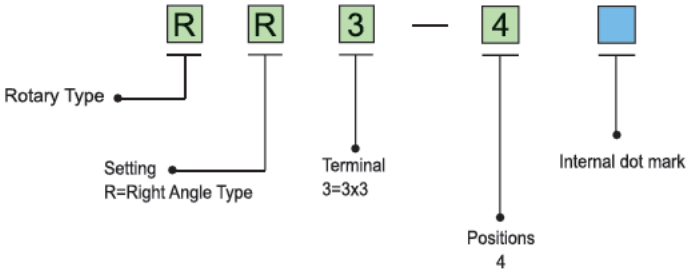
Tube:50pcs/tube

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● RHL-16 	
2	● RHL-10 	



HOW TO ORDER



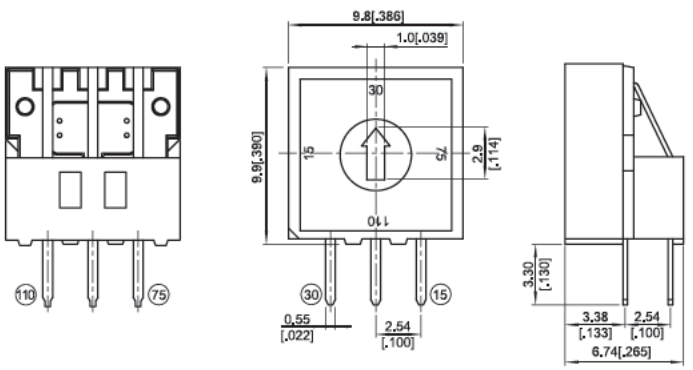
Specification

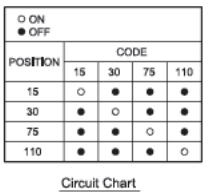
Items		Standard
Environmental	Operation Temperature Range	-25℃ to +80℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	20,000 steps
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	200gf-cm max

Package
Tube:48pcs/tube

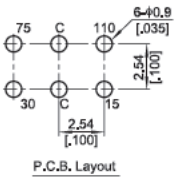
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● RR3-4	

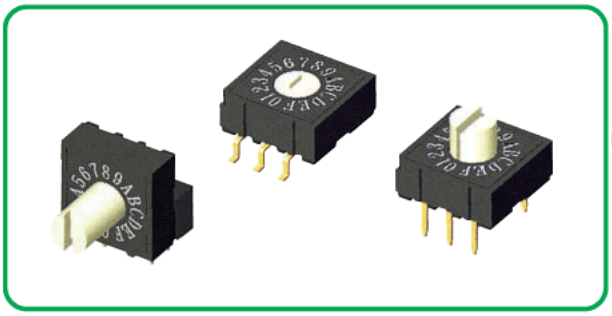




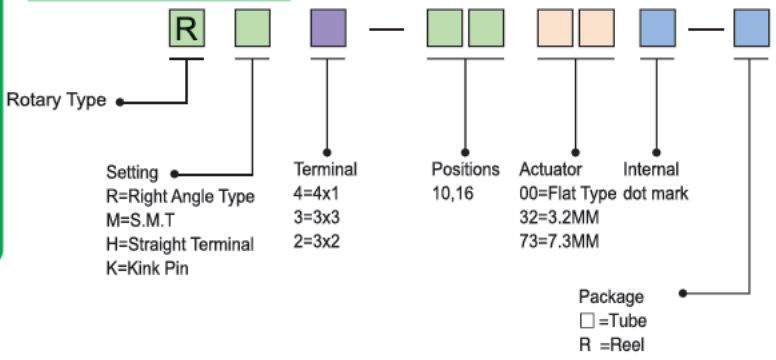
Circuit Chart



P.C.B. Layout



HOW TO ORDER



Specification

Items		Standard
Environmental	Operation Temperature Range	-25℃ to +80℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	20,000 steps
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	200gf-cm max

Package

Tube:48pcs/tube

Tape and Reel:

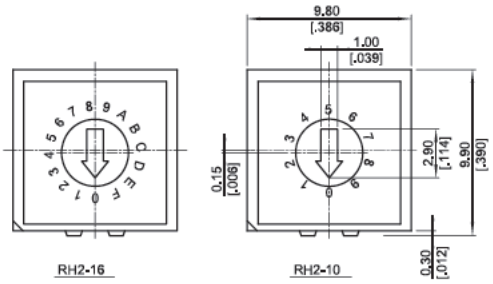
750 pcs/reel (recessed actuator)

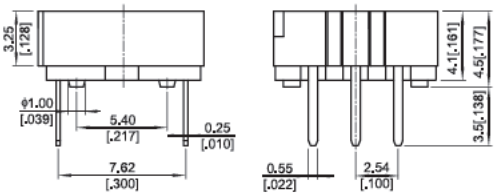
500 pcs/reel (3.2mm actuator)

250 pcs/reel (7.3mm actuator)

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● RH2	○ ON ● OFF





TYPE	POSITION	CODE 1	2	4	8
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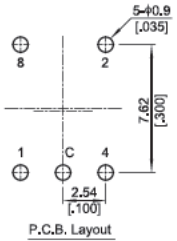
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
	A	●	○	●	○
	B	○	○	●	○
O16	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

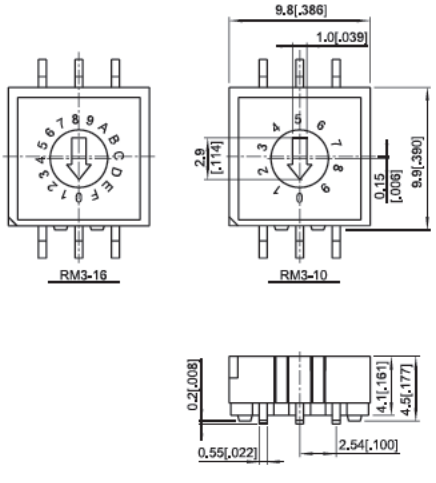
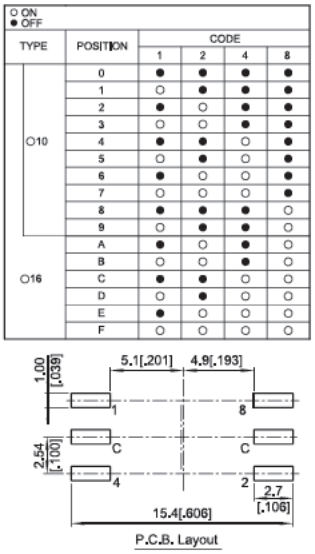
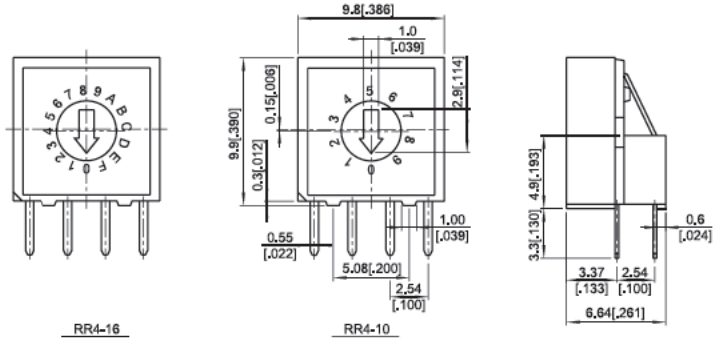
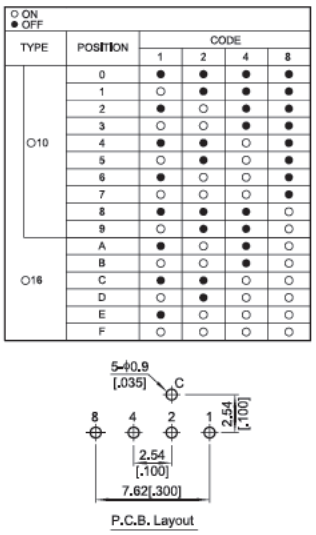
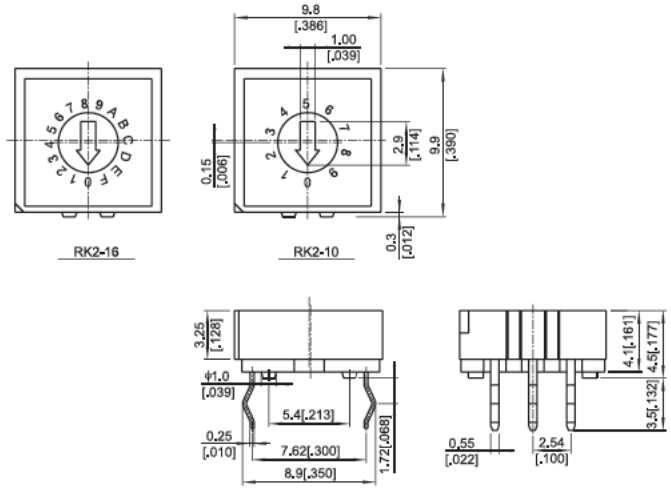
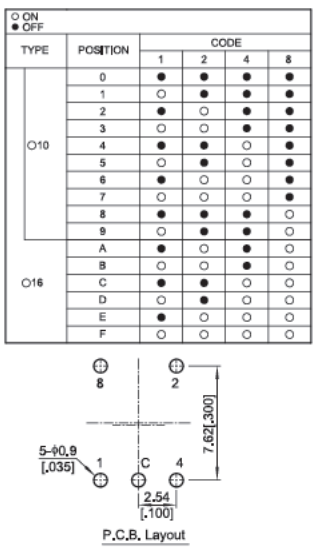


P.C.B. Layout

LEAD FREE

RoHS Compliant

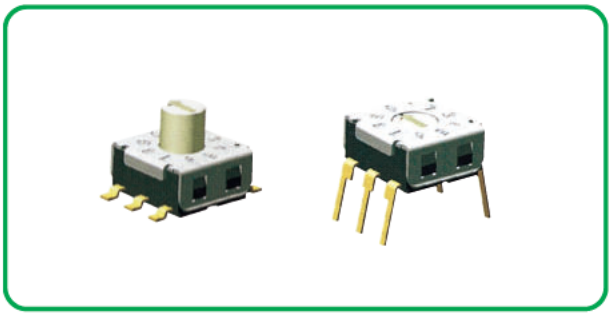
Diagram

No.	Dimensions	Circuit Diagram Pad Layout
2	● RM3  	 P.C.B. Layout
3	● RR4  	 P.C.B. Layout
4	● RK2  	 P.C.B. Layout

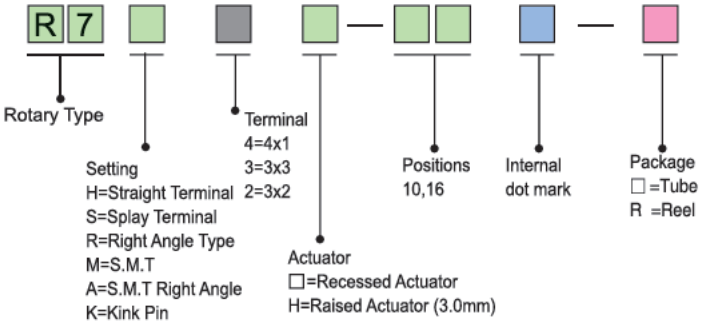
ROTARY CODED SWITCH

RS SERIES

7x7mm Rotary Type



HOW TO ORDER



Specification

Items		Standard
Environmental	Operation Temperature Range	-40℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	20,000 steps
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	200gf-cm max

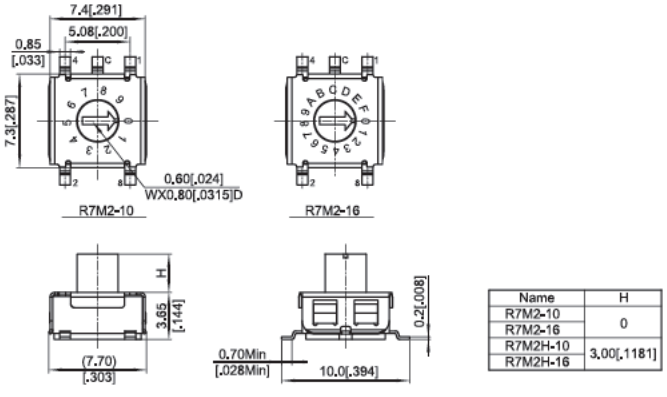
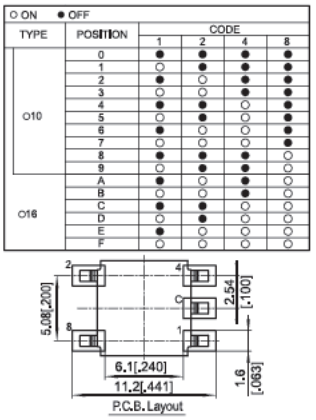
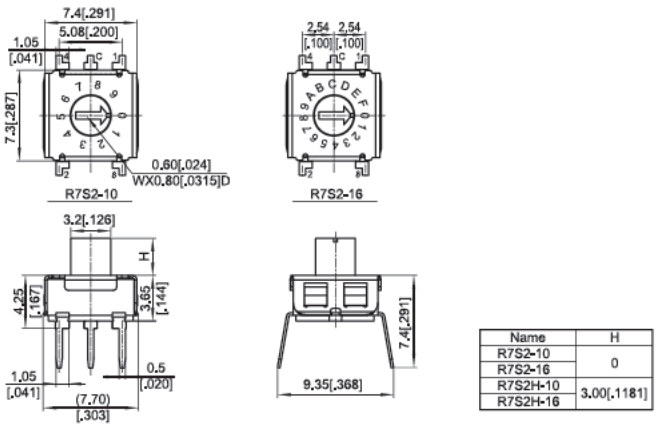
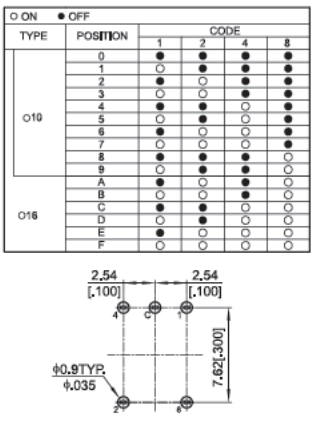
Package

R7M2:1200pcs/reel

R7M2H:650pcs/reel

Tube:62pcs/tube

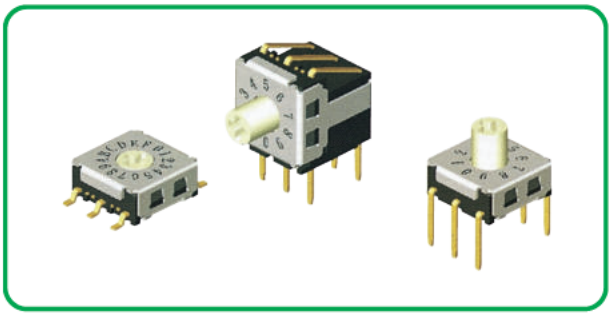
Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● R7M2 	
2	● R7S2 	

Name	H
R7M2-10	0
R7M2-16	
R7M2H-10	3.00[.1181]
R7M2H-16	

Name	H
R7S2-10	0
R7S2-16	
R7S2H-10	3.00[.1181]
R7S2H-16	

TYPE	POSITION	CODE 1	2	4	8
O10	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



HOW TO ORDER

R 7 ☐ ☐ ☐ — ☐☐ ☐ — ☐

- Rotary Type
- Setting
  H=Straight Terminal
  S=Splay Terminal
  R=Right Angle Type
  M=S.M.T
  A=S.M.T Right Angle
  K=Kink Pin
- Terminal
  4=4x1
  3=3x3
  2=3x2
- Actuator
  ☐=Recessed Actuator
  H=Raised Actuator (3.0mm)
- Positions
  10,16
- Internal dot mark
- Package
  ☐ =Tube
  R =Reel

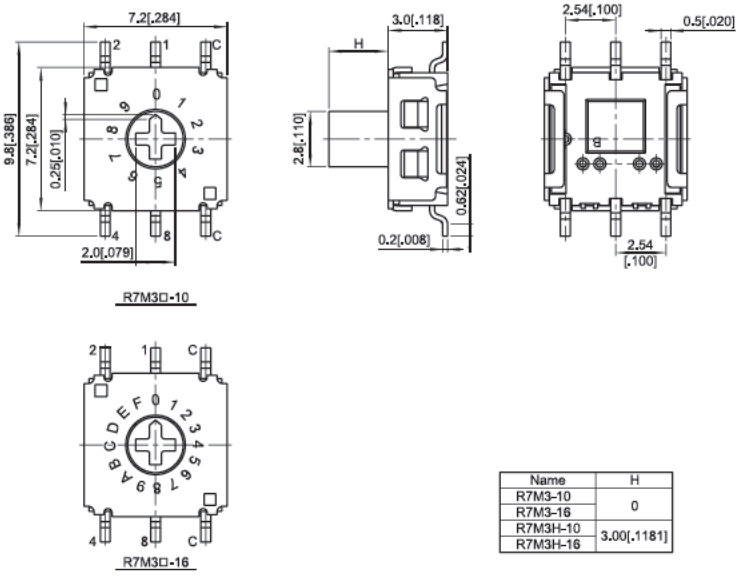
Specification

Items		Standard
Environmental	Operation Temperature Range	-30℃ to +80℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	10,000 steps
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	200gf-cm max

Package
R7H,R7M:63pcs/tube
R7R:60pcs/tube
R7M*:1450pcs/reel
R7M*H:850pcs/reel
R7A:750pcs/reel
R7A4H:750pcs/reel

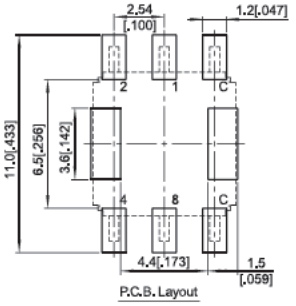
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● R7M3	

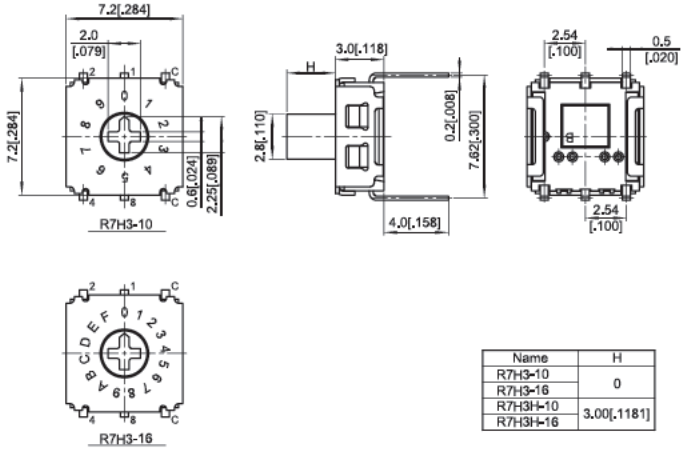
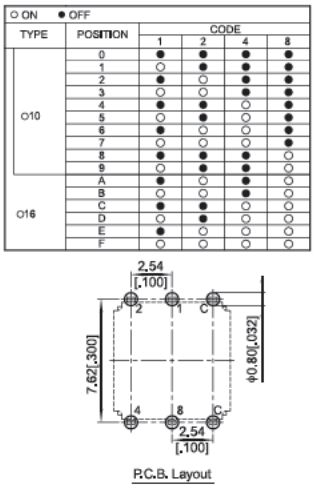
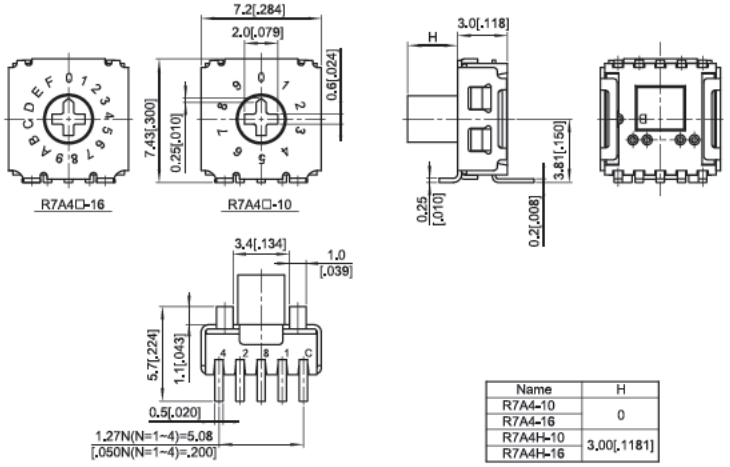
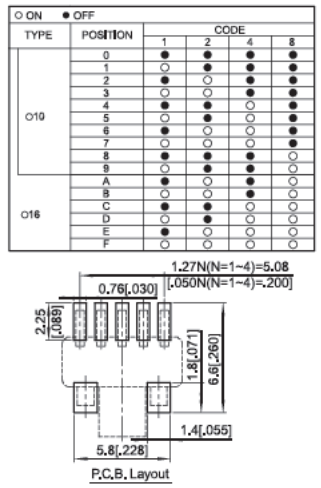
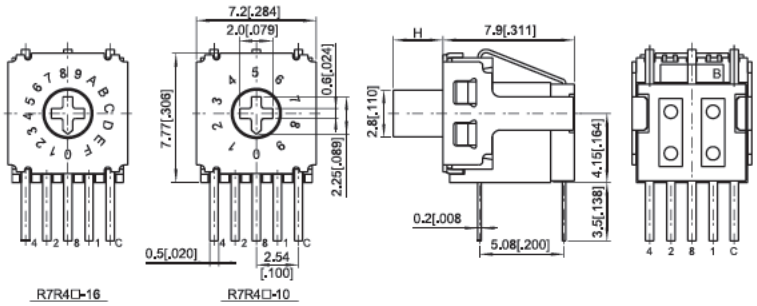
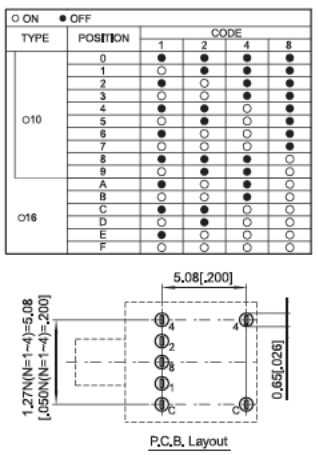


○ ON
● OFF

TYPE	POSITION	CODE 1	2	4	8
010	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
	A	●	○	●	○
	B	○	○	●	○
016	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



Diagram

No.	Dimensions	Circuit Diagram Pad Layout
2	● R7H3  Name / H R7H3-10, R7H3-16 / 0 R7H3H-10, R7H3H-16 / 3.00[.1181]	
3	● R7A4  Name / H R7A4-10, R7A4-16 / 0 R7A4H-10, R7A4H-16 / 3.00[.1181]	
4	● R7R4  Name / H R7R4-10, R7R4-16 / 0 R7R4H-10, R7R4H-16 / 3.00[.1181]	

InterElcom

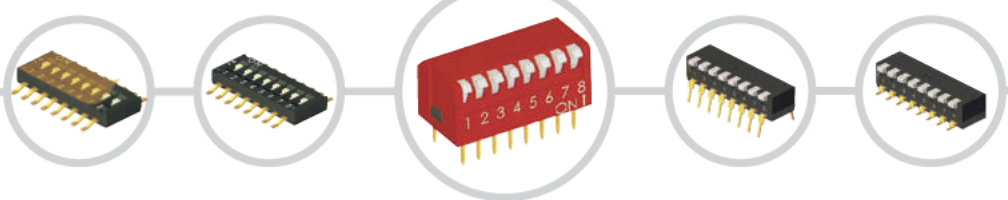
06 DIP SWITCH SERIES

Features:

- Smaller size makes better heat convection during PC board wave soldering.
- Top tape sealed to withstand wave soldering, board washing.
- All plastics are UL 94V-0 grade fire retardant.
- Gold plated contact to ensure low contact resistance and long mechanical life.

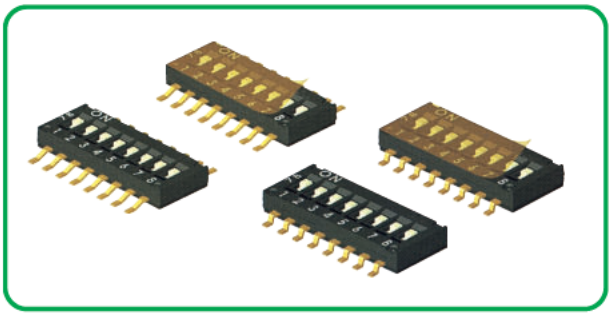
Applications:

- Hand-held electronic devices, such as PDA, MP3, radios.
- Portable computer and electronic devices, such as notebook, computers.
- Instrumentation and industrial control products, such as CDROM, coin changers.

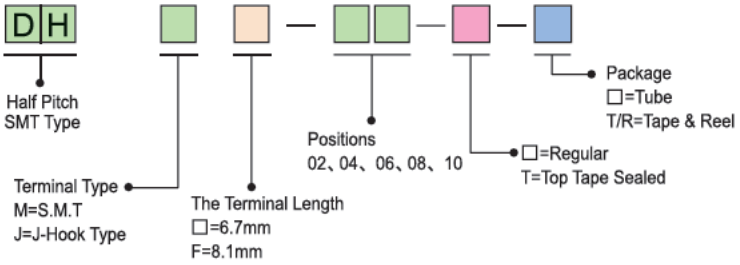


SMT SERIES

1.6mm Half Pitch SMT Type



HOW TO ORDER



Precaution:For quality assurance, please operate actuators carefully fefer specification.

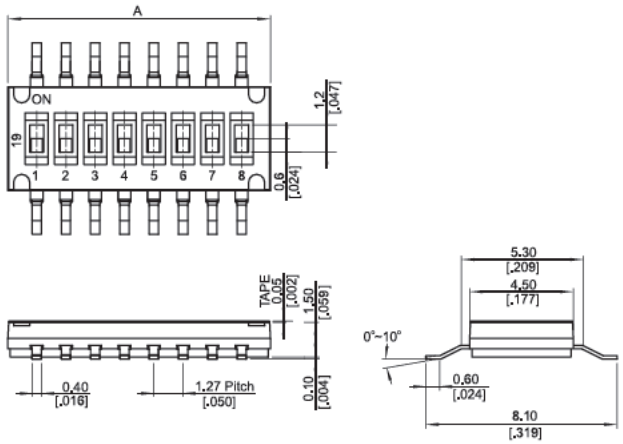
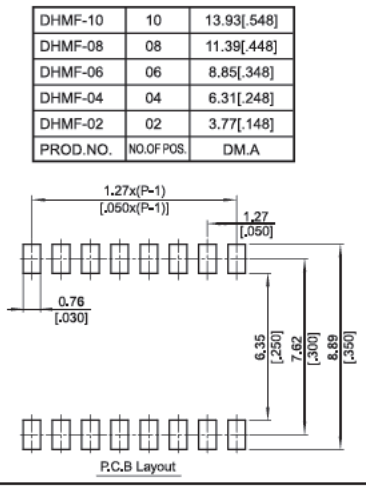
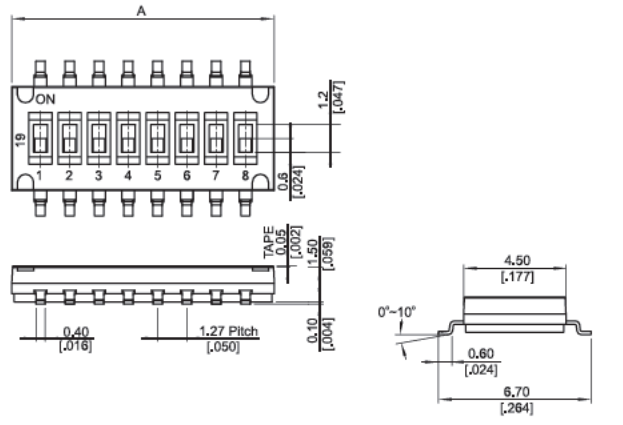
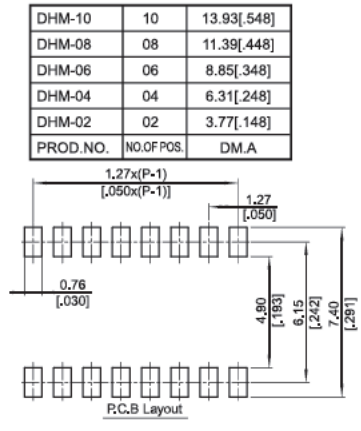
Specification

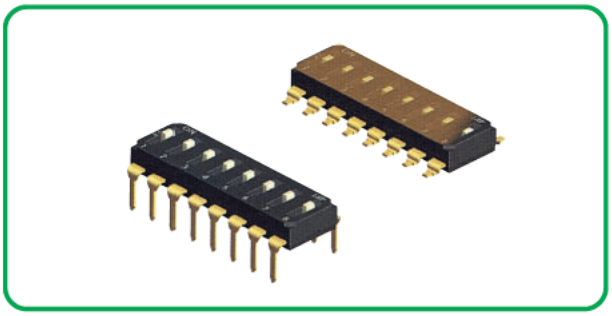
Items		Standard
Environmental	Operation Temperature Range	-40℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	1000 operation cycles
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	500gf
	Stroke	0.6mm

Package

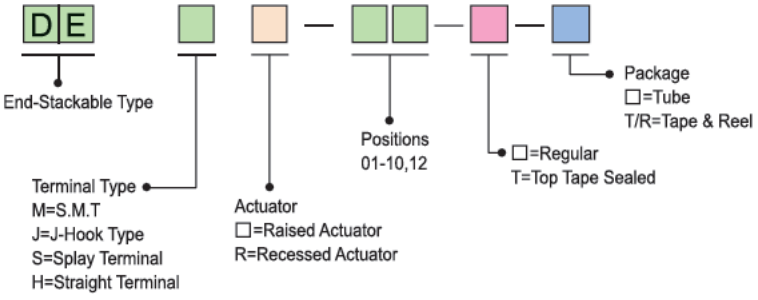
DHM(F)-02(-T):125pcs/tube
DHM(F)-04(-T):75pcs/tube
DHM(F)-06(-T):54pcs/tube
DHM(F)-08(-T):40pcs/tube
DHM(F)-10(-T):33pcs/tube
Tape and Reel:
DHM(F) series:2500 pcs/reel

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	● DHMF 	
2	● DHM 	



HOW TO ORDER



Specification

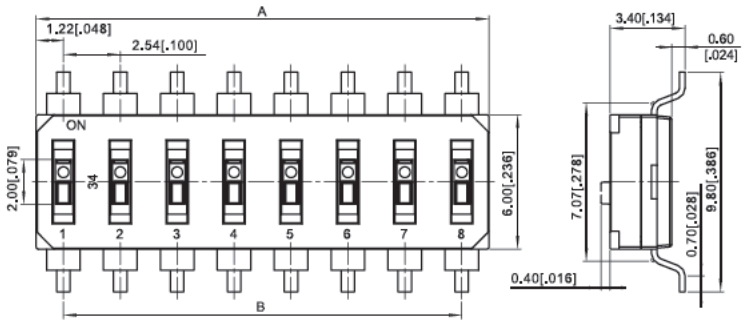
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2000 cycles
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	1,000gf max.
	Stroke	1.0mm

Package

DEM(R)/DEH(R)/DES(R)-01:194pcs/tube
DEM(R)/DEH(R)/DES(R)-02:95pcs/tube
DEM(R)/DEH(R)/DES(R)-03:63pcs/tube
DEM(R)/DEH(R)/DES(R)/DEJ(R)-04:47pcs/tube
DEM(R)/DEH(R)/DES(R)-05:38pcs/tube
DEM(R)/DEH(R)/DES(R)-06:31pcs/tube
DEM(R)/DEH(R)/DES(R)-07:27pcs/tube
DEM(R)/DEH(R)/DES(R)/DEJ(R)-08:23pcs/tube
DEM(R)/DEH(R)/DES(R)-09:21pcs/tube
DEM(R)/DEH(R)/DES(R)/DEJ(R)-10:19pcs/tube
DEM(R)/DEH(R)/DES(R)-12:15pcs/tube
DEM(R)-01~10,12:900 pcs/reel

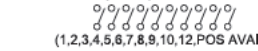
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● DEM	

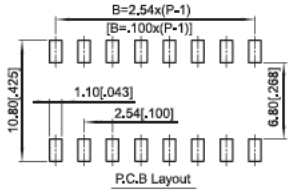


DEM-12 DEMR-12	12	30.38[.196]	27.94[1.100]
DEM-10 DEMR-10	10	25.3[.996]	22.86[.900]
DEM-09 DEMR-09	9	22.76[.896]	20.32[.800]
DEM-08 DEMR-08	8	20.22[.796]	17.78[.700]
DEM-07 DEMR-07	7	17.68[.696]	15.24[.600]
DEM-06 DEMR-06	6	15.14[.596]	12.70[.500]
DEM-05 DEMR-05	5	12.6[.496]	10.16[.400]
DEM-04 DEMR-04	4	10.06[.396]	7.62[.300]
DEM-03 DEMR-03	3	7.52[.296]	5.08[.200]
DEM-02 DEMR-02	2	4.98[.196]	2.54[.100]
DEM-01 DEMR-01	1	2.44[.096]	---
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

SCHEMATIC(TYP.)



(1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)



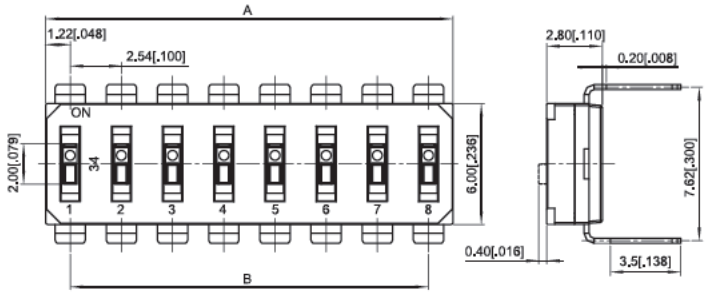
P.C.B Layout

Diagram

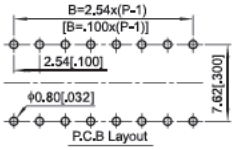
No.	Dimensions	Circuit Diagram Pad Layout

2

● DEH

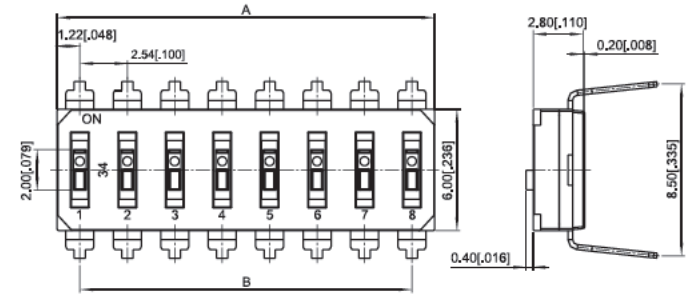


DEH-12 DEHR-12	12	30.38[1.196]	27.94[1.100]
DEH-10 DEHR-10	10	25.3[.996]	22.86[.900]
DEH-09 DEHR-09	9	22.76[.896]	20.32[.800]
DEH-08 DEHR-08	8	20.22[.796]	17.78[.700]
DEH-07 DEHR-07	7	17.68[.696]	15.24[.600]
DEH-06 DEHR-06	6	15.14[.596]	12.70[.500]
DEH-05 DEHR-05	5	12.6[.496]	10.16[.400]
DEH-04 DEHR-04	4	10.06[.396]	7.62[.300]
DEH-03 DEHR-03	3	7.52[.296]	5.08[.200]
DEH-02 DEHR-02	2	4.98[.196]	2.54[.100]
DEH-01 DEHR-01	1	2.44[.096]	---
PROD.NO.	NO. OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.) (1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)			

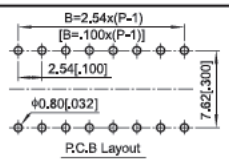


3

● DES

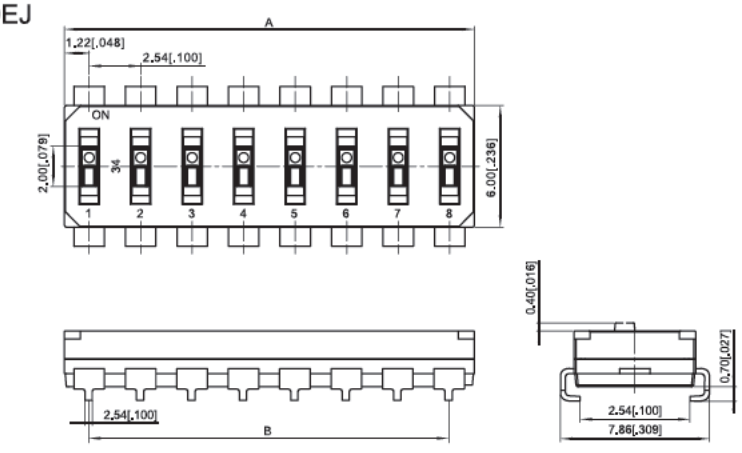


DES-12 DESR-12	12	30.38[1.196]	27.94[1.100]
DES-10 DESR-10	10	25.3[.996]	22.86[.900]
DES-09 DESR-09	9	22.76[.896]	20.32[.800]
DES-08 DESR-08	8	20.22[.796]	17.78[.700]
DES-07 DESR-07	7	17.68[.696]	15.24[.600]
DES-06 DESR-06	6	15.14[.596]	12.70[.500]
DES-05 DESR-05	5	12.6[.496]	10.16[.400]
DES-04 DESR-04	4	10.06[.396]	7.62[.300]
DES-03 DESR-03	3	7.52[.296]	5.08[.200]
DES-02 DESR-02	2	4.98[.196]	2.54[.100]
DES-01 DESR-01	1	2.44[.096]	---
PROD.NO.	NO. OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.) (1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)			

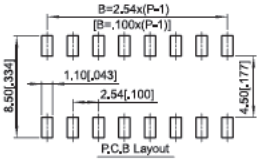


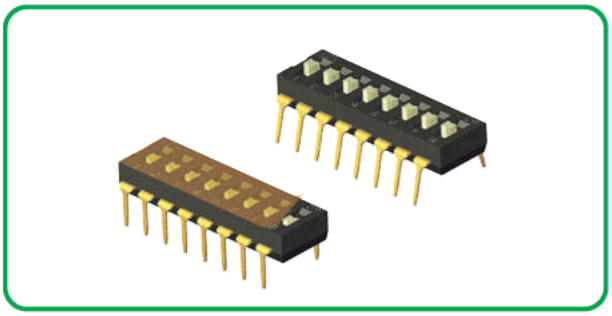
4

● DEJ

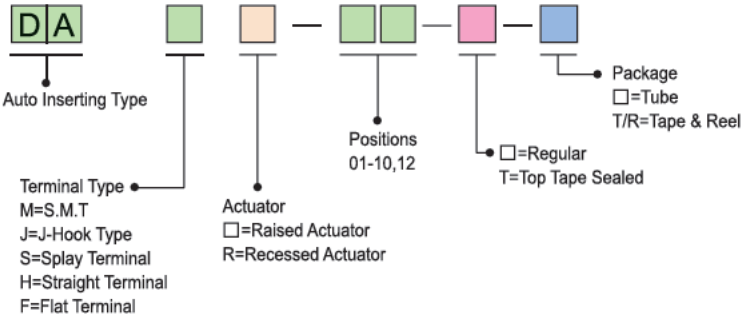


DEJ-10 DEJR-10	10	25.3[.996]	22.86[.900]
DEJ-08 DEJR-08	8	20.22[.796]	17.78[.700]
DEJ-04 DEHR-04	4	10.06[.396]	7.62[.300]
PROD.NO.	NO. OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.) (1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)			





HOW TO ORDER



Specification

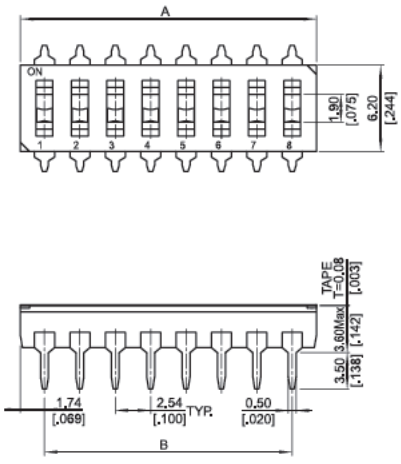
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Mechanical Life	2,000 operations
	Operating force	1,000gf max.
	Stroke	1.0mm

Package

DAH(R)-01(-T):130pcs/tube
DAH(R)-02(-T):76pcs/tube
DAH(R)-03(-T):55pcs/tube
DAH(R)-04(-T):42pcs/tube
DAH(R)-05(-T):34pcs/tube
DAH(R)-06(-T):29pcs/tube
DAH(R)-07(-T):25pcs/tube
DAH(R)-08(-T):22pcs/tube
DAH(R)-09(-T):20pcs/tube
DAH(R)-10(-T):18pcs/tube
DAH(R)-12(-T):15pcs/tube

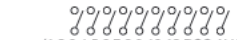
Diagram

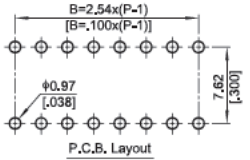
No.	Dimensions	Circuit Diagram / Pad Layout
1	● DAH(S)	

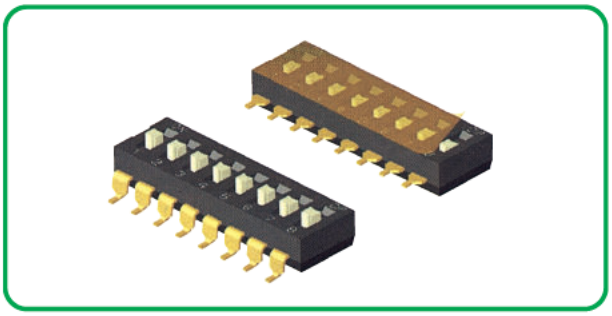


PROD.NO.	NO.OF POS.	DIM.A	DIM.B
DAH-12 DAHR-12	12	31.42[1.237]	27.94[1.100]
DAH-10 DAHR-10	10	26.34[1.037]	22.86[.900]
DAH-09 DAHR-09	9	23.80[.937]	20.32[.800]
DAH-08 DAHR-08	8	21.26[.837]	17.78[.700]
DAH-07 DAHR-07	7	18.72[.737]	15.24[.600]
DAH-06 DAHR-06	6	16.18[.637]	12.70[.500]
DAH-05 DAHR-05	5	13.64[.537]	10.16[.400]
DAH-04 DAHR-04	4	11.10[.437]	7.62[.300]
DAH-03 DAHR-03	3	8.56[.337]	5.08[.200]
DAH-02 DAHR-02	2	6.02[.237]	2.54[.100]
DAH-01 DAHR-01	1	3.48[.137]	---

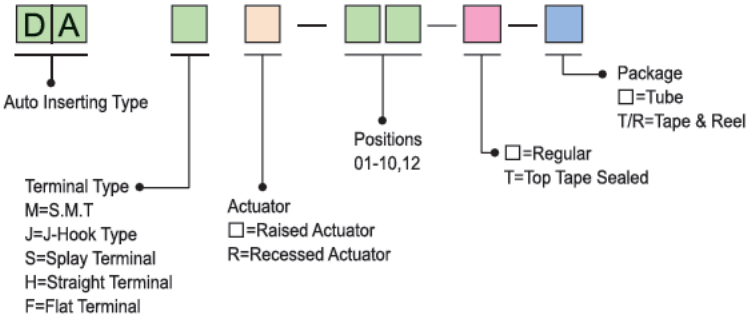
SCHEMATIC(TYP.)







HOW TO ORDER



Specification

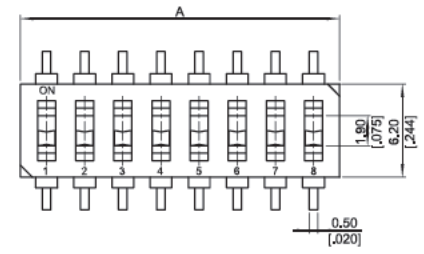
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Mechanical Life	2,000 operations
	Operating force	1,000gf max.
	Stroke	1.0mm

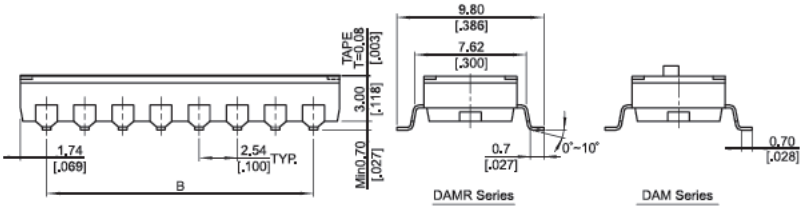
Package

DAM(R)-01(-T):130pcs/tube
DAM(R)-02(-T):76pcs/tube
DAM(R)-03(-T):55pcs/tube
DAM(R)-04(-T):42pcs/tube
DAM(R)-05(-T):35pcs/tube
DAM(R)-06(-T):28pcs/tube
DAM(R)-07(-T):25pcs/tube
DAM(R)-08(-T):22pcs/tube
DAM(R)-09(-T):20pcs/tube
DAM(R)-10(-T):18pcs/tube
DAM(R)-12(-T):15pcs/tube
DAM(R)-01-T-T/R:800pcs/reel
DAMR-02-T-T/R~DMR-12-T-TR:900pcs/reel
DAM-(01)(05)(07)(10)-T/R:800pcs/reel
DAM-(02)(03)(04)(06)(08)(12)-T/R:700pcs/reel
DJR-(02)(03)(04)(08)(09)(10)-T/R:1000pcs/reel

Diagram

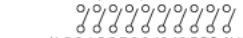
No.	Dimensions	Circuit Diagram / Pad Layout
1	● DAM	



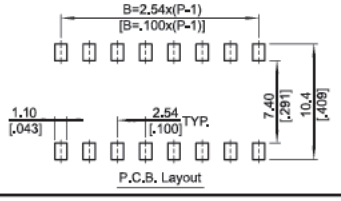


PROD.NO.	NO.OF POS.	DIM.A	DIM.B
DAM-12 DAMR-12	12	31.42[1.237]	27.94[1.100]
DAM-10 DAMR-10	10	26.34[1.037]	22.86[.900]
DAM-09 DAMR-09	9	23.80[.937]	20.32[.800]
DAM-08 DAMR-08	8	21.26[.837]	17.78[.700]
DAM-07 DAMR-07	7	18.72[.737]	15.24[.600]
DAM-06 DAMR-06	6	16.18[.637]	12.70[.500]
DAM-05 DAMR-05	5	13.64[.537]	10.16[.400]
DAM-04 DAMR-04	4	11.10[.437]	7.62[.300]
DAM-03 DAMR-03	3	8.56[.337]	5.08[.200]
DAM-02 DAMR-02	2	6.02[.237]	2.54[.100]
DAM-01 DAMR-01	1	3.48[.137]	---

SCHEMATIC(TYP.)



(1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)

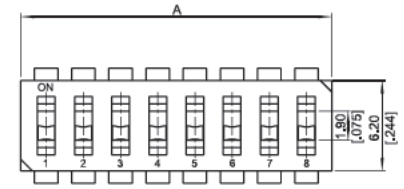


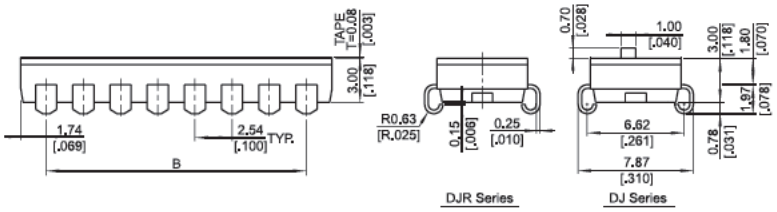
Diagram

No.	Dimensions	Circuit Diagram Pad Layout

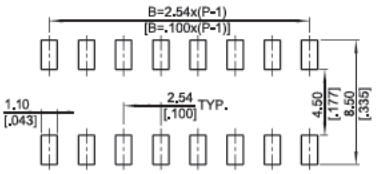
2

● DAJ





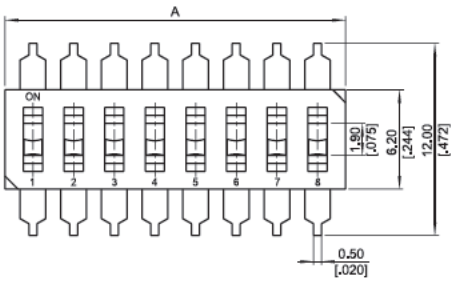
DAJ-12 DAJR-12	12	31.42[1.237]	27.94[1.100]
DAJ-10 DAJR-10	10	26.34[1.037]	22.86[.900]
DAJ-09 DAJR-09	9	23.80[.937]	20.32[.800]
DAJ-08 DAJR-08	8	21.26[.837]	17.78[.700]
DAJ-07 DAJR-07	7	18.72[.737]	15.24[.600]
DAJ-06 DAJR-06	6	16.18[.637]	12.70[.500]
DAJ-05 DAJR-05	5	13.64[.537]	10.16[.400]
DAJ-04 DAJR-04	4	11.10[.437]	7.62[.300]
DAJ-03 DAJR-03	3	8.56[.337]	5.08[.200]
DAJ-02 DAJR-02	2	6.02[.237]	2.54[.100]
DAJ-01 DAJR-01	1	---	---
PROD.NO.	NO.OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.) (1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)			

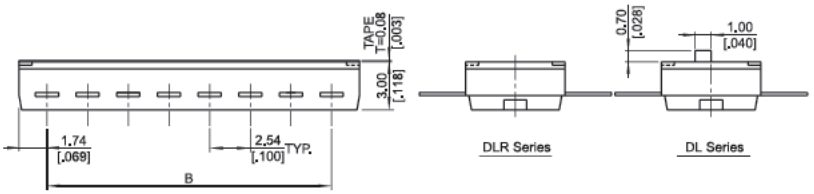


P.C.B. Layout

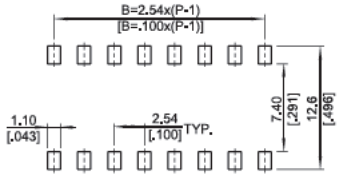
3

● DAF



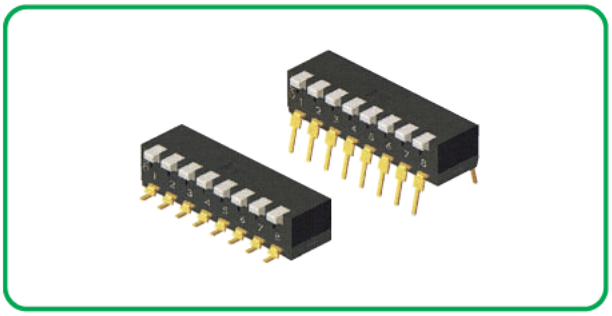


DAF-12 DAFR-12	12	31.42[1.237]	27.94[1.100]
DAF-10 DAFR-10	10	26.34[1.037]	22.86[.900]
DAF-09 DAFR-09	9	23.80[.937]	20.32[.800]
DAF-08 DAFR-08	8	21.26[.837]	17.78[.700]
DAF-07 DAFR-07	7	18.72[.737]	15.24[.600]
DAF-06 DAFR-06	6	16.18[.637]	12.70[.500]
DAF-05 DAFR-05	5	13.64[.537]	10.16[.400]
DAF-04 DAFR-04	4	11.10[.437]	7.62[.300]
DAF-03 DAFR-03	3	8.56[.337]	5.08[.200]
DAF-02 DAFR-02	2	6.02[.237]	2.54[.100]
DAF-01 DAFR-01	1	3.48[.137]	---
PROD.NO.	NO.OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.) (1,2,3,4,5,6,7,8,9,10,12,POS AVAIL)			

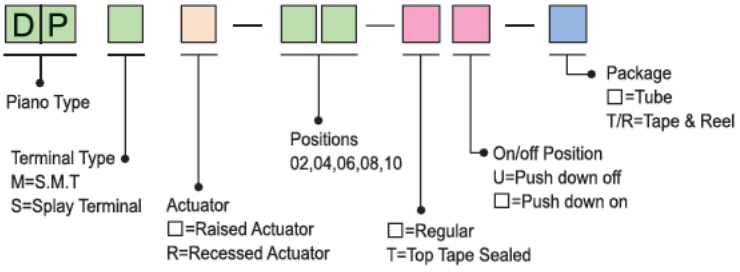


P.C.B. Layout

DIP SERIES
New Piano Type



HOW TO ORDER



Specification

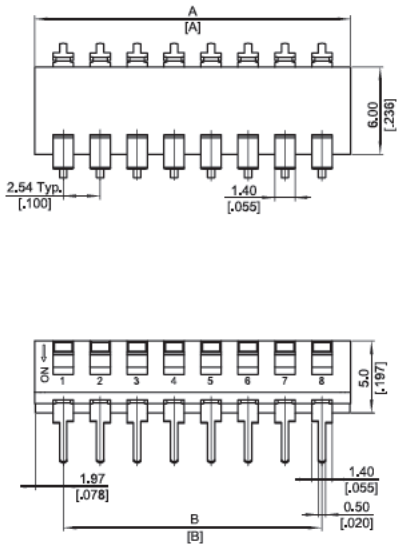
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	800gf max.

Package

DPS(R)/DPM(R)-02:70pcs/tube
DPS(R)/DPM(R)-04:40pcs/tube
DPS(R)/DPM(R)-06:28pcs/tube
DPS(R)/DPM(R)-08:20pcs/tube
DPS(R)/DPM(R)-10:16pcs/tube
DPS(R)-02,04,06,08,10:700pcs/reel

Diagram

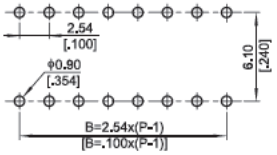
No.	Dimensions	Circuit Diagram / Pad Layout
1	● DPS	



DPS-10	10	26.8[1.055]	22.86[.900]
DPS-08	8	21.72[.855]	17.78[.700]
DPS-06	6	16.64[.655]	12.70[.500]
DPS-04	4	11.56[.455]	7.62[.300]
DPS-02	2	6.48[.255]	2.54[.100]
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

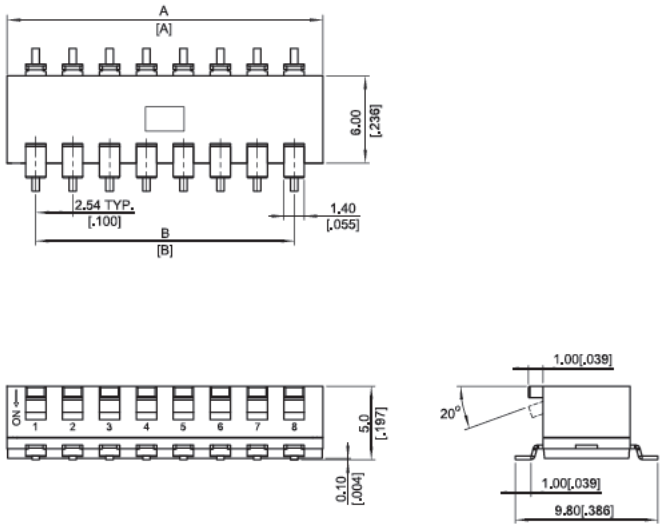
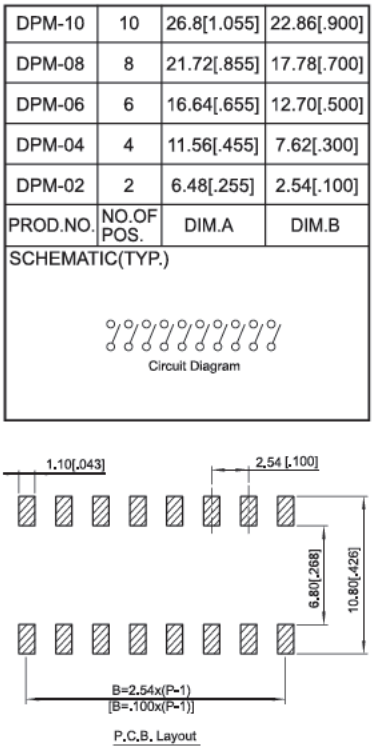
SCHEMATIC(TYP.)

Circuit Diagram



P.C.B. Layout

Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
2	● DPM 	

PROD.NO.	NO.OF POS.	DIM.A	DIM.B
DPM-10	10	26.8[1.055]	22.86[.900]
DPM-08	8	21.72[.855]	17.78[.700]
DPM-06	6	16.64[.655]	12.70[.500]
DPM-04	4	11.56[.455]	7.62[.300]
DPM-02	2	6.48[.255]	2.54[.100]

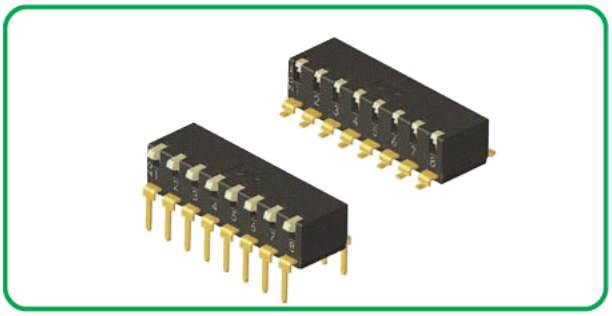
SCHEMATIC(TYP.)

Circuit Diagram

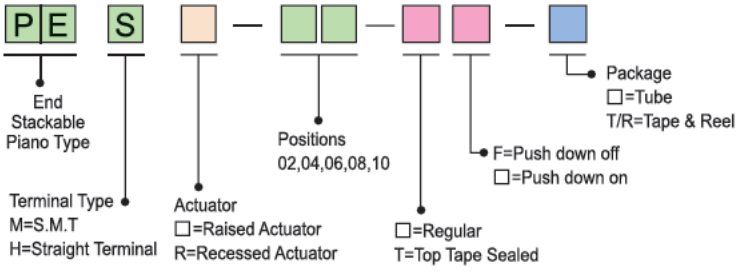
P.C.B. Layout

DIP SERIES

End Stackable Piano Type



HOW TO ORDER



Specification

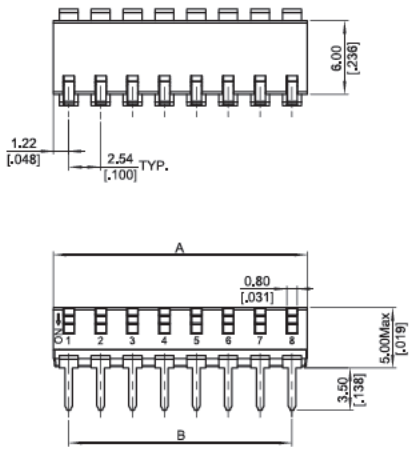
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +85℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 cycles
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	800gf max.

Package

PES(R)/PEM(R)-02:95pcs/tube
PES(R)/PEM(R)-04:47pcs/tube
PES(R)/PEM(R)-06:31pcs/tube
PES(R)/PEM(R)-08:23pcs/tube
PES(R)/PEM(R)-10:18pcs/tube
PES(R)-02,04,06,08,10:700pcs/reel

Diagram

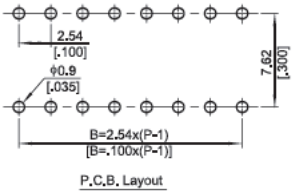
No.	Dimensions	Circuit Diagram / Pad Layout
1	● PEH	



PEH-10 PEHR-10	10	25.30[.996]	22.86[.900]
PEH-08 PEHR-08	8	20.22[.796]	17.78[.700]
PEH-06 PEHR-06	6	15.14[.596]	12.70[.500]
PEH-04 PEHR-04	4	10.06[.396]	7.62[.300]
PEH-02 PEHR-02	2	4.89[.196]	2.54[.100]
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

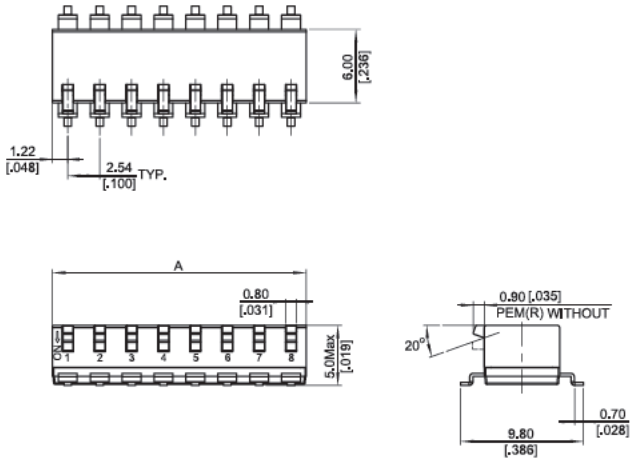
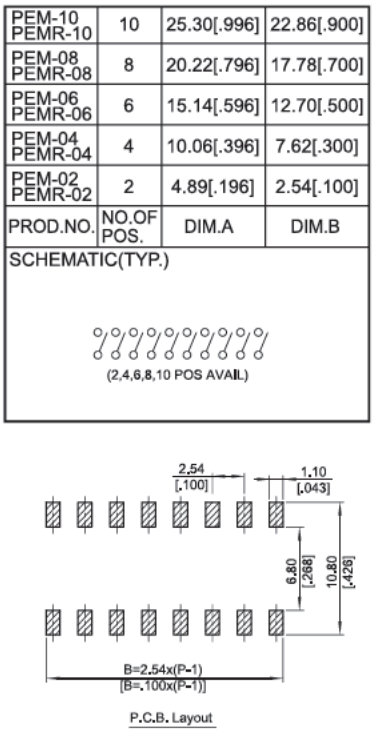
SCHEMATIC(TYP.)

(2,4,6,8,10 POS AVAIL)



P.C.B. Layout

Diagram

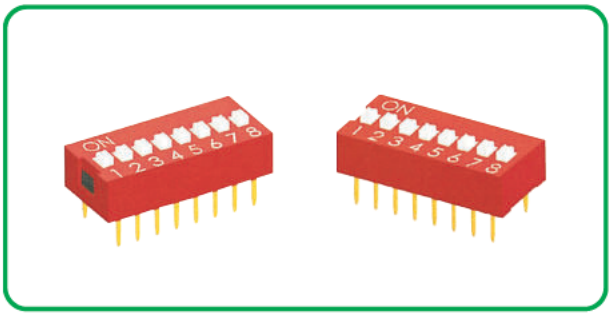
No.	Dimensions	Circuit Diagram / Pad Layout
2	● PEM 	

PEM-10 PEMR-10	10	25.30[.996]	22.86[.900]
PEM-08 PEMR-08	8	20.22[.796]	17.78[.700]
PEM-06 PEMR-06	6	15.14[.596]	12.70[.500]
PEM-04 PEMR-04	4	10.06[.396]	7.62[.300]
PEM-02 PEMR-02	2	4.89[.196]	2.54[.100]
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

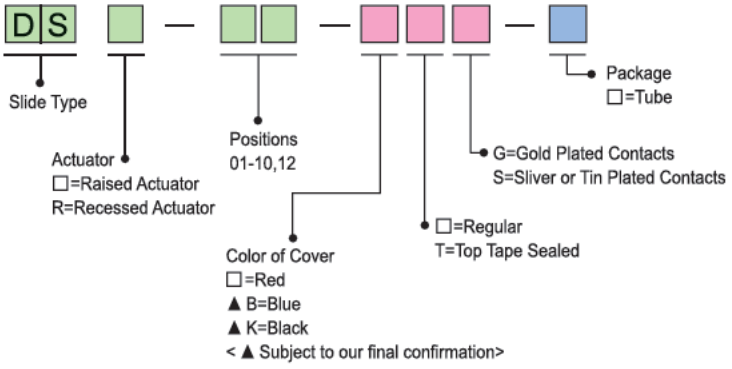
SCHEMATIC(TYP.)

(2,4,6,8,10 POS AVAIL)

P.C.B. Layout



HOW TO ORDER



Specification

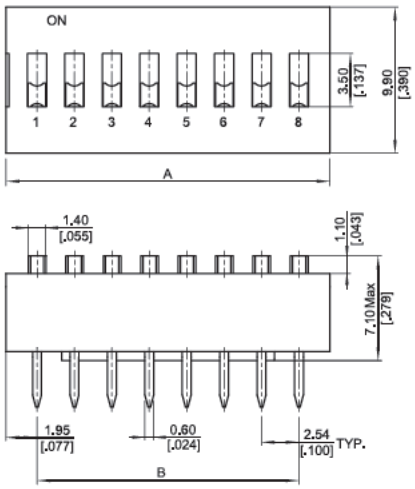
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +70℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	1,000gf max.
	Stroke	2.0mm

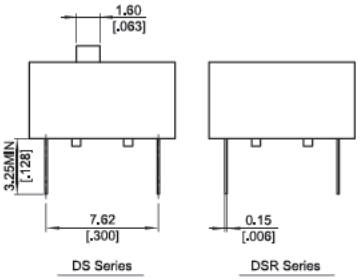
Package

DS(R)-01:120pcs/tube	DS(R)-01-T:113pcs/tube
DS(R)-02:72pcs/tube	DS(R)-02-T:70pcs/tube
DS(R)-03:51pcs/tube	DS(R)-03-T:50pcs/tube
DS(R)-04:40pcs/tube	DS(R)-04-T:39pcs/tube
DS(R)-05:32pcs/tube	DS(R)-05-T:32pcs/tube
DS(R)-06:27pcs/tube	DS(R)-06-T:27pcs/tube
DS(R)-07:24pcs/tube	DS(R)-07-T:24pcs/tube
DS(R)-08:21pcs/tube	DS(R)-08-T:21pcs/tube
DS(R)-09:19pcs/tube	DS(R)-09-T:19pcs/tube
DS(R)-10:17pcs/tube	DS(R)-10-T:17pcs/tube
DS(R)-12:14pcs/tube	DS(R)-12-T:14pcs/tube

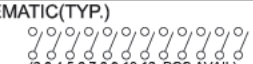
Diagram

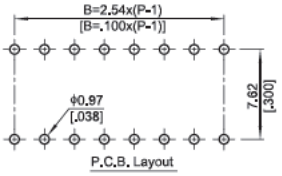
No.	Dimensions	Circuit Diagram / Pad Layout
1	● DS	

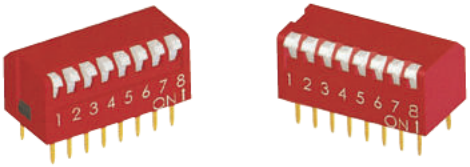




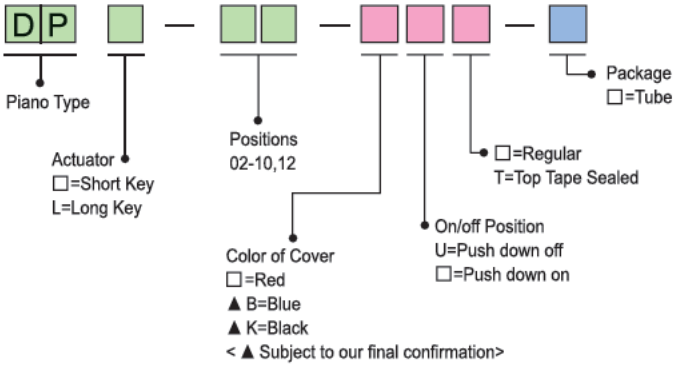
DS-12 DSR-12	12	31.84[1.254]	27.94[1.100]
DS-10 DSR-10	10	26.76[1.054]	22.86[.900]
DS-09 DSR-09	9	24.22[.954]	20.32[.800]
DS-08 DSR-08	8	21.68[.854]	17.78[.700]
DS-07 DSR-07	7	19.14[.754]	15.24[.600]
DS-06 DSR-06	6	16.60[.654]	12.70[.500]
DS-05 DSR-05	5	14.06[.554]	10.16[.400]
DS-04 DSR-04	4	11.52[.454]	7.62[.300]
DS-03 DSR-03	3	8.98[.354]	5.08[.200]
DS-02 DSR-02	2	6.44[.254]	2.54[.100]
DS-01 DSR-01	1	3.90[.153]	---
PROD.NO.	NO.OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP.)			







HOW TO ORDER



Specification

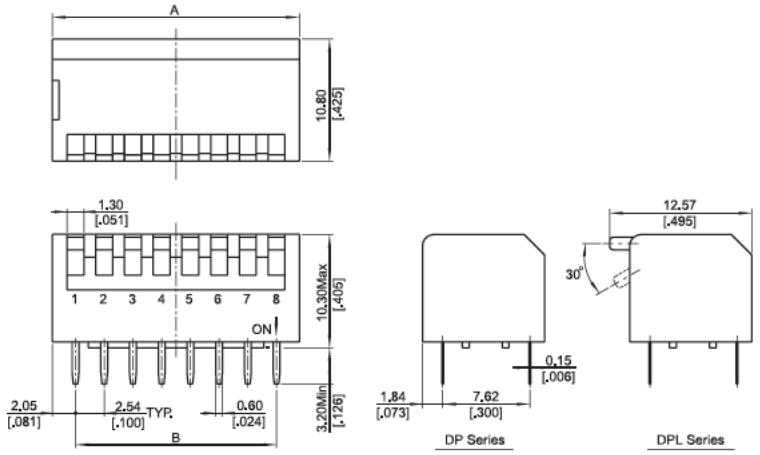
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +70℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	400gf max.
	Stroke	2.0mm

Package

DP(L)-02:70pcs/tube DP(L)-02-T:75pcs/tube
DP(L)-03:50pcs/tube DP(L)-03-T:49pcs/tube
DP(L)-04:39pcs/tube DP(L)-04-T:39pcs/tube
DP(L)-05:32pcs/tube DP(L)-05-T:32pcs/tube
DP(L)-06:27pcs/tube DP(L)-06-T:27pcs/tube
DP(L)-07:24pcs/tube DP(L)-07-T:24pcs/tube
DP(L)-08:21pcs/tube DP(L)-08-T:21pcs/tube
DP(L)-09:19pcs/tube DP(L)-09-T:19pcs/tube
DP(L)-10:17pcs/tube DP(L)-10-T:17pcs/tube
DP(L)-12:14pcs/tube DP(L)-12-T:14pcs/tube

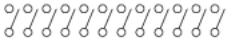
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● DP	

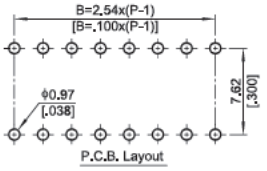


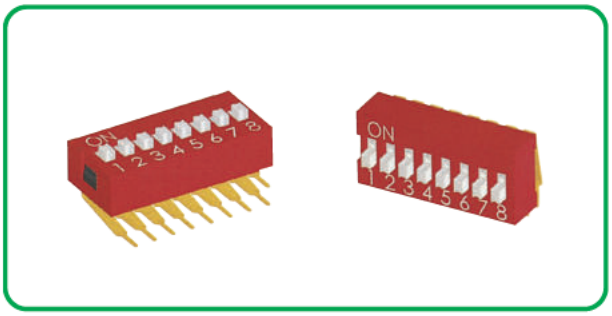
DP-12 DPL-12	12	31.84[1.254]	27.94[1.100]
DP-10 DPL-10	10	26.76[1.054]	22.86[.900]
DP-09 DPL-09	9	24.22[.954]	20.32[.800]
DP-08 DPL-08	8	21.68[.854]	17.78[.700]
DP-07 DPL-07	7	19.14[.754]	15.24[.600]
DP-06 DPL-06	6	16.60[.654]	12.70[.500]
DP-05 DPL-05	5	14.06[.554]	10.16[.400]
DP-04 DPL-04	4	11.52[.454]	7.62[.300]
DP-03 DPL-03	3	8.98[.354]	5.08[.200]
DP-02 DPL-02	2	6.44[.261]	2.54[.100]
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

SCHEMATIC(TYP.)



(2,3,4,5,6,7,8,9,10,12, POS AVAIL)





HOW TO ORDER

D R — □□ — □□□ — □

- Right Angle Type
- Positions: 02-10,12
- Color of Cover: □=Red, ▲ B=Blue, ▲ K=Black, < ▲ Subject to our final confirmation>
- □=Regular, T=Top Tape Sealed
- G=Gold Plated Contacts, S=Sliver or Tin Plated Contacts
- Package: □=Tube

Specification

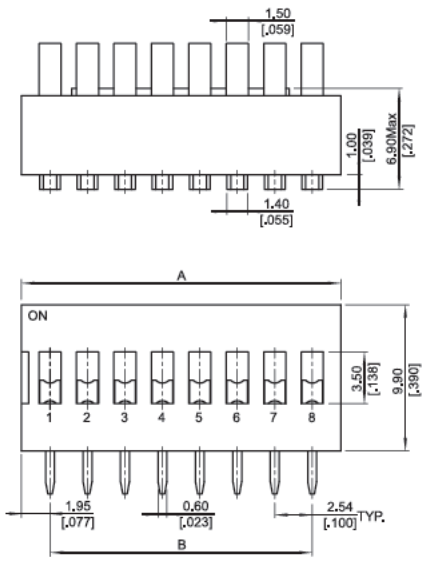
Items		Standard
Environmental	Operation Temperature Range	-20℃ to +70℃
	Storage Temperature Range	-40℃ to +85℃
Electrical performance	Electrical Life	2,000 operations
	Non-Switching Rating	100mA,50VDC
	Switching Rating	25mA,24VDC
Mechanical performance	Operating force	1,000gf max.
	Stroke	2.0mm

Package

DR-02:73pcs/tube	DA-02-T:70pcs/tube
DR-03:52pcs/tube	DA-03-T:50pcs/tube
DR-04:40pcs/tube	DA-04-T:39pcs/tube
DR-05:33pcs/tube	DA-05-T:32pcs/tube
DR-06:28pcs/tube	DA-06-T:28pcs/tube
DR-07:24pcs/tube	DA-07-T:24pcs/tube
DR-08:21pcs/tube	DA-08-T:21pcs/tube
DR-09:19pcs/tube	DA-09-T:19pcs/tube
DR-10:17pcs/tube	DA-10-T:17pcs/tube
DR-12:14pcs/tube	DA-12-T:14pcs/tube

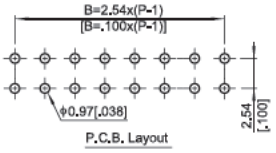
Diagram

No.	Dimensions	Circuit Diagram / Pad Layout
1	● DR	



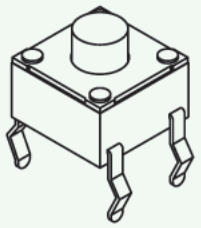
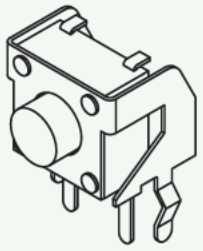
DR-12	12	31.84[1.254]	27.94[1.100]
DR-10	10	26.76[1.054]	22.86[.900]
DR-09	9	24.22[.954]	20.32[.800]
DR-08	8	21.68[.854]	17.78[.700]
DR-07	7	19.14[.754]	15.24[.600]
DR-06	6	16.60[.654]	12.70[.500]
DR-05	5	14.06[.554]	10.16[.400]
DR-04	4	11.52[.454]	7.62[.300]
DR-03	3	8.98[.354]	5.08[.200]
DR-02	2	6.44[.261]	2.54[.100]
PROD.NO.	NO.OF POS.	DIM.A	DIM.B

SCHEMATIC(TYP.)

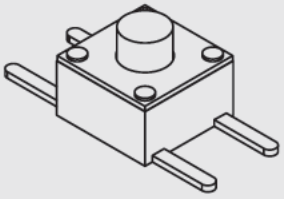


TERMINAL TYPE

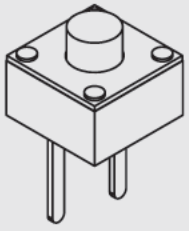
When order tact switch, please refer to the following illustration for your terminal choice

Vertical	Horizontal
	

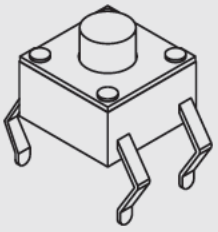
Terminal Type



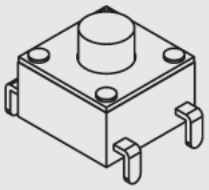
F: Flat Terminal



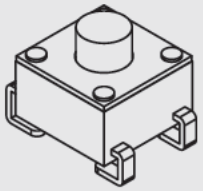
T: Tapping



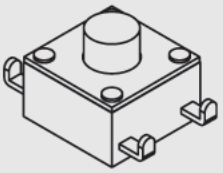
P: Through Hole Terminals



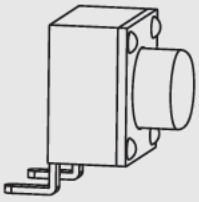
J: J type



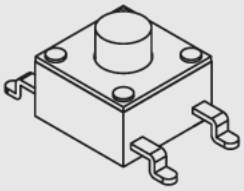
J: J type



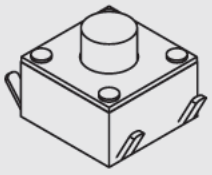
R: Reverse Lead



M: S.M.T



M: S.M.T



U:U type

Caution

1.Note that terminals might suffer deformation of the switch and the defects in electrical performance, if the load is applied to the terminals during soldering.

2.If you use a through-hole PC board or a PC board thinner or thicker than the recommendation, here may be greater heat stress. Verify the soldering conditions thoroughly before use.

3.When soldering twice, wait until the first soldered portion cools to normal temperature. Continuous heating will deform the external portions, loosen or dislodge terminals, or may deteriorate their electrical characteristics.

4.Verify soldering conditions under actual mass production conditions.

5.This product is designed and manufactured assuming that it is to be used with the resistance for direct current. If you use other kinds of resistance [inductive (L) or capacitive (C)], consult with us beforehand.

6.For the sizes of holes and patterns on a PC board for mounting a switch, refer to the recommended dimensions in the outline drawings.

7.This switch is designed for maunally operated units. Do not use this switch in a mechanical detection unit. For detection purposes, please use our detection switch.

8.The switch will be break if you apply a greater stress than that specified. Take great care not to let the switch be subject to greater stress than specified.

9.Do not press the side of the stem.

10.Be sure to push the center position of a flat stem switch. Extreme care is required for a hinge structure type because the stem press position moves when it is pressed.

11.If you put the board with the switch in the oven so as to harden adhesive for other parts, consult with us.

12.When corrosive gas is generated by a peripheral material of a product using the TACT switch, malfunctions such as imperfect contacts can occur. Check this point thoroughly in advance.

13.The contact resistance of a rubber contact type changes depending on pressure load. Confirm that it functions sufficiently when you use this TACT switch with a voltage divider circuit.

14.Be aware of dust intrusion into an unsealed-type TACT switch.

15.Storage method

(1) If you do not use the product immediately, store it just as delivered in the following environment: with neither direct sunshine nor corrosive gas and in normal temperatures. However, it is recommended that you should use it as soon as possible or within six months from the date of delivery at the most.

(2) After you break the seal, you should put the remainder in a plastic bag to shut out outside air, and store it in the same environment mentioned above. You should use it up as soon as possible.

(3) Do not stack too many switches for safety.

(4) Store the key switches with the switch in the released position.

InterElcom

InterElcom Sp. z o.o.

ul. Zagony 25, 54-614 Wrocław, Polska

NIP: 8982185866, Regon: 021451864

T: +48 (71) 780 78 36 | F: +48 (71) 780 78 46

www.interelcom.com | info@interelcom.com