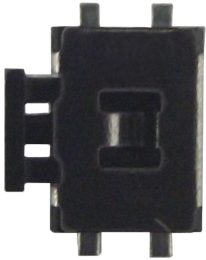


Tactile Switch - MCPT Series

Side Push

multicomp PRO

**RoHS
Compliant**

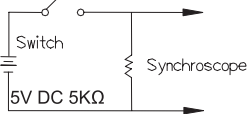
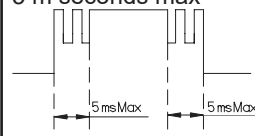



Features

- For high density mounting
- Side actuation
- Reflow solderable

Electrical Specifications

Contact Arrangement	: SPST
Contact Rating	: 50mA, 12V DC
Contact Resistance	: 100mΩ Max.
Insulation Resistance	: 100MΩ Min. 500V DC
Dielectric Strength	: 250V AC/1 minute
Operating Force	: 220 +80gf/-70gf
Travel	: 0.30mm (Side Push)
Operating Life	: 100,000 cycles
Operating Temperature	: -25°C to +70°C
Storage Temperature	: -30°C to +80°C

	No.	Description	Test Conditions	Requirements	
Appearance	1	Visual Examination	By visual examination check without any out pressure & testing	There shall be no defects that affect the serviceability of the product.	
Electric Performance	2	Contact Resistance	Applying a static load 1.5-2 times the operating force to the centre of the stem, measurements shall be made with a 1kHz small current contact resistance meter	100mΩ Max	
	3	Insulation Resistance	Measurements shall be made following application of 500V DC potential across terminals and cover for 1 minute ± 5 seconds	100MΩ min	
	4	Dielectric Withstanding Voltage	250V AC(50Hz or 60Hz) shall be applied across terminals and cover for 1 minute	There shall be no breakdown or flashover	
	5	Capacitance	1MHz ±10kHz	5pF max.	
	6	Bounce	3 to 4 operations at a rate of 1 cycles per second 	5 m seconds max 	
Mechanical Performance	7	Operating Force	Applied in the direction of operation 	Side push	Vertical push
				OF 220 ⁺⁸⁰ ₋₇₀ g (2.156N ⁺⁷⁸⁴ _{,-686N})	160±50g (1.568±49N)

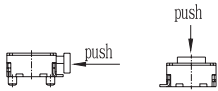
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 Farnell.com/multicomp-pro
 sg.element14.com/b/multicomp-pro

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Tactile Switch - MCPT Series

Side Push



	No.	Description	Test Conditions	Requirements
Mechanical Performance	8	Stroke	Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the stem, the stroke distance for the stem to come to a stop shall be measured 	Side push : 0.3 ^{+0.10} _{-0.15} mm Vertical push : 0.2 (0.10) mm
	9	Stop Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 2kgf shall be applied in the direction of stem operation for a period of 15 seconds	As shown in item 4~7 Contact Resistance: 200mΩ Max Insulation Resistance: 10MΩ min
	10	Solder Heat Resistance	Through Hole Type Soldering Temperature: 260±5°C Duration of Solder Immersion: 5±1 seconds Frequency of Soldering Process 2 times max. (PCB is 1.6mm in thickness) Test time: 2 hours each direction	Shall be free from pronounced backlash and falling-off or breakage terminals As shown in item 4~5 Contact Resistance: 200mΩ Max Insulation Resistance: 10MΩ min
	11	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F Swing distance=1.5mm Frequency: 10-55-10Hz in 1-min/cycle. Direction: 3 vertical directions including the directions of operation Test time: 2 hours each direction	As shown in item 4~7 Contact Resistance: 200mΩ Max Insulation Resistance: 10MΩ min
	12	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F Acceleration: 50G Action time: 11±1m seconds Testing Direction: 6 sides Test Cycle: 3 times in each direction	Ditto
Durability	13	Operating Life	Measurements shall be made following the test forth below: 5mA, 5 VDC resistive load Applying a static load the operating force to the centre of the stem in the direction of operation Static Load = OF Max. Cycle of Operation: 100,000 cycles min.	As shown in item 4~5 Operating force: ±50% of initial force Contact Resistance: 10Ω Max Insulation Resistance: 10MΩ min Bounce: 10 m seconds Max
Weather-Proof	14	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: Temperature: -25±3°C Time: 96 hours	As shown in item 4~7 Contact Resistance: 200mΩ Max Insulation Resistance: 10MΩ min

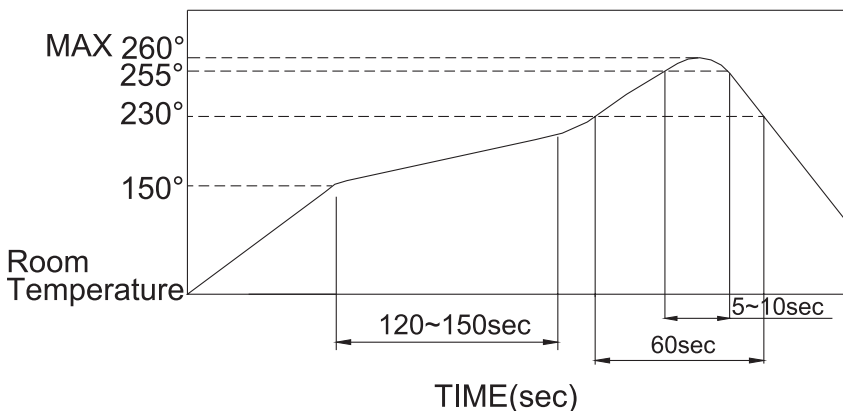
Tactile Switch - MCPT Series

Side Push

	No.	Description	Test Conditions	Requirements
Weather-Proof	15	Heat Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: Temperature: $80 \pm 2^{\circ}\text{C}$ Time: 96 hours	Ditto
	16	Humidity Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: Temperature: $40 \pm 2^{\circ}\text{C}$ Relative Humidity: 90~95% Time: 96 hours	Ditto

Soldering Conditions

Condition for Soldering MCPT-V Series



The condition mentioned above is the temperature on the Cu foil of the PCB surface. There are cases where board's temperature greatly differs from switch's surface be used not to allow switch's surface temperature to exceed 260°C.

Manual Soldering

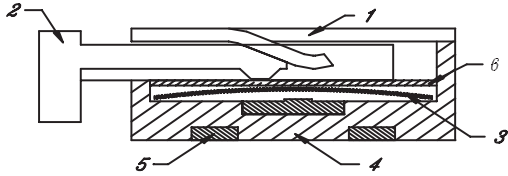
Soldering Temperature	Max. 350°C
Continuous Soldering Time	Max. 5 seconds

Tactile Switch - MCPT Series

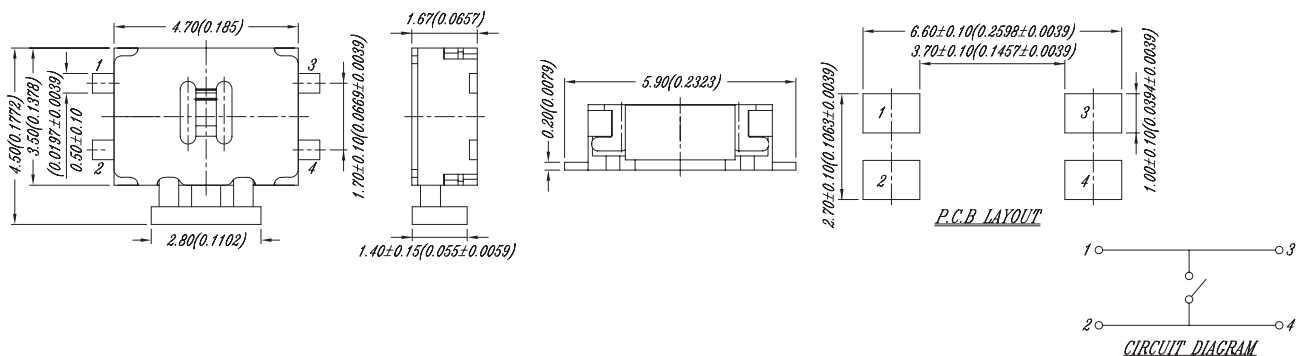
Side Push



Diagram



No.	Part Name	Material	Treatment	Qty
1	Cover	Stainless Steel: For PT Side Push Type And PT Front Push/Without Ground Terminal Type. Nickel Silver: For PT Front Push/With Ground Terminal Type.	None	1
2	Stem	High - Temp Thermoplastic Vertical Push: LCP UL94V – 0 Side Push: Nylon UL94V – 0		
3	Contact	Stainless Steel		
4	Base	High-Temp Thermoplastic Nylon UL94V – 0	Molded Black	
5	Terminal	Brass	With Silver Plating	
6	Adhesive Tape	Kapton		



Part Number Table

Description	Part Number
Tactile Switch, Non-Illuminated, w/Post, SPST, Side Push, 50mA, 12V DC, Flat SMD	MCPTCF-V
Tactile Switch, Non-Illuminated, SPST, Side Push, 50mA, 12V DC, Flat SMD	MCPTF-V

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