For computer mouse Compact-sized Snap Action Switches MQS-53A-M Series

Features

- Long life suitable for the use of computer mouse.
- Cost reduction by resource saving design.
- 2 variations with operating force 0.74N and 1.47N.
- Flux-resistant construction with integrally molded terminals.

Actual size

Applications

- computer mouse
- others (for micro current)

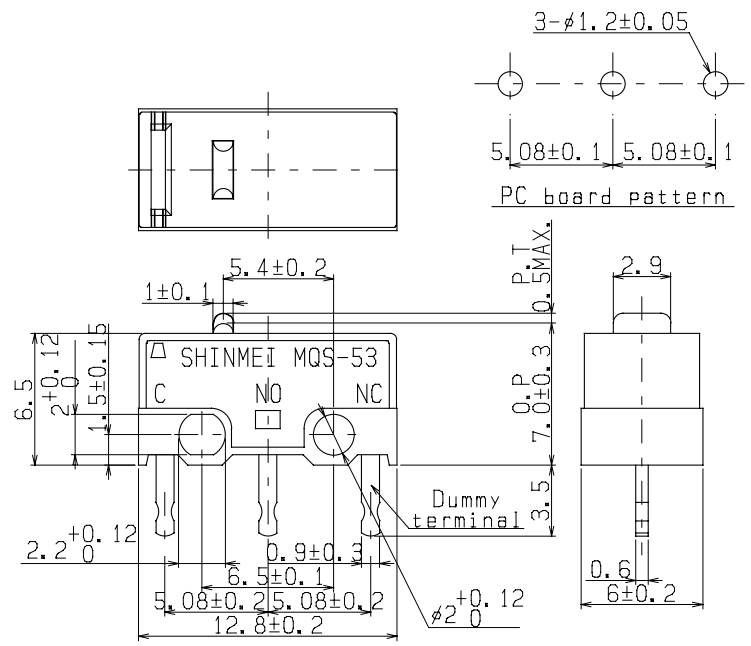
Products Number

No	Operating force (MAX)	Products No.
1	0.74N(75gf)	MQS-53A-3-M
1	1.47N(150gf)	MQS-53A-5-M

Typical Specifications

Item	Specifications	
Contact	Silver alloy contact type	
Operating force (Pin plunger type)	MAX 0.74N (75gf)	MAX 1.47N (150gf)
Ratings (Resistive load)	50mA 30V DC	
Mechanical life	5,000,000 cycles	
Contact resistance (Initial)	MAX 100 milliohm	
Insulation Resistance	MIN 100 megohm 500V DC	
Withstanding voltage	Between open contacts : 600V AC 1min Between each terminal and non live metal part : 1500V AC 1min Between each terminal and each : 1500V AC 1min	
Resistibility to vibration (Pin plunger type)	double amplitude : 1.5mm , frequency : 10 to 55Hz Each direction Open contact shall be less than 1 ms at the above conditions.	
Resistibility to shock (Pin plunger type)	Open contact shall be less than 1 ms at 30G.	
Allowable operating speed (at no load)	1 to 500 mm/sec.	
Max. operating cycle rate (at no load)	120 times/min.	
Operating temperature range	-20 to +70 degree Celsius	
Ambient humidity	MAX 85%RH	

[] Dimension Unit : mm

No	Style	Operating characteristic	
1		P.T. MAX	0.5mm
		M.D. MAX	0.12mm
		O.T. MIN	0.2mm
		O.P.	7.0 plus or minus 0.3mm

[] Notes

1. The appearance and specifications of the product may be modified without prior notice to improve its performance.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications.
3. Please see appendix [Cautions in Using Switches].
4. Fix the switch by M2 screw with torque less than 9.8 N-cm(1 kg-cm)
   Fixing with spring washers and adhesive are recommended to avoid the loose of the screw.
5. Operating force applied to push button or actuator should be zero at free position and the force shall not be applied vertically to push button during the operation.
6. O.T. (Over travel) shall be set between 80% and 100% of O.T. specifications.
7. In connecting lead wires, care should be taken not to apply tension to terminal.
8. In case of manual-soldering, soldering should be finished within 3 seconds by soldering iron of 30 W or with maximum tip temperature of 350 degree Celsius. Please do not apply pressure for 1 minute after soldering.
9. Please design usage of switch in proper operation even if any standard value of operational characteristics changes by plus or minus 20 % .
10. No dust, high humidity and organic gas should be found in the storage location.
11. Please confirm the performance on actual operation by simulation with actual environment environments for high reliability.