

Slide Switch

Specification

Rating : 0.1A DC 12V Max.
 Contact Resistance : 20mΩ Max.
 Insulation Resistance : 500V DC - 100MΩ Min.
 Dielectric Strength : 500V AC - 1 minute.
 Operating Force : 250 ±150gf
 Operating Life : 10,000 Cycles Min.
 General tolerances : ±0.3mm.
 Operating Temperature Range : -40°C to +85°C
 Storage Temperature Range : -20°C to +60°C

Test conditions

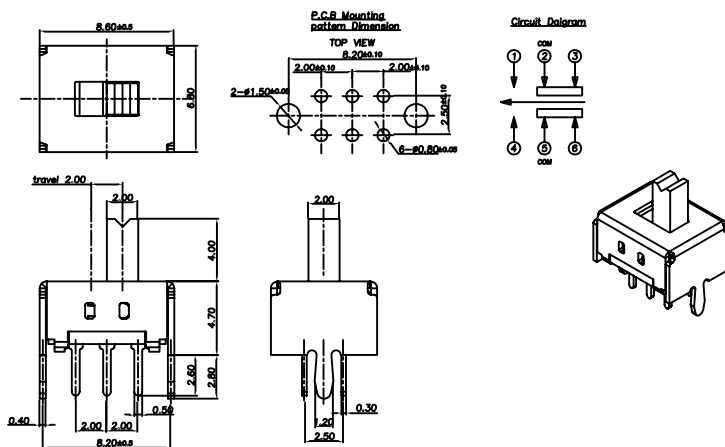
Unless otherwise specified, the test and measurements shall be carried out as follows.

Ambient temperature : 5°C to 35°C
 Relative humidity : 45% to 85%
 Air pressure : 86 to 106 kPa

However, if doubt arises on the decision based on the measured values under the above-mentioned conditions, the following conditions shall be employed.

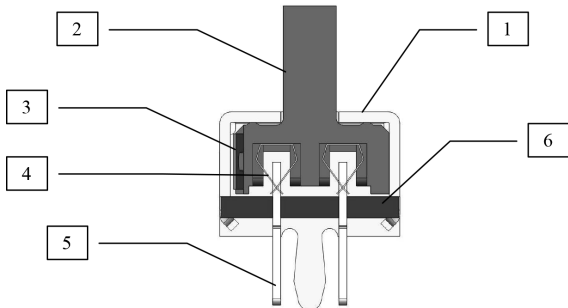
Ambient temperature : 20± 2°C
 Relative humidity : 65±5 %
 Rating : 12V DC, 0.1A
 Type of Actuation : Actuated by sliding
 Timing : Non shorting

Diagram

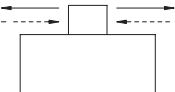


Dimensions : Millimetres (Inches)

Item	Description	Q'ty	Materials	Treatment	Remark
1	Cover	1	SPCC	NI Plating	--
2	Stem		High-Temp Thermoplastic Nylon L 94V - 0		Black
3	Spring Plate		Phosphor Bronze	With Silver Plating	--
4	Contact Clip	2			
5	Terminal	6	Brass		
6	Base	1	Phenolic Resin		



Test Sequence:

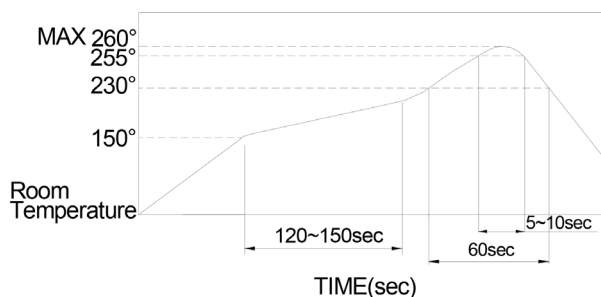
Item	Description	Test Conditions	Requirements
Electric Performance			
1	Contact Resistance	1. To be measured between the two terminals associated with each switch pole. 2. Measurements shall be made with a 1kHz shall current contact resistance meter.	20mΩ Max. (initial)
2	Insulation Resistance	500V DC, 1 minute ± 5 sec.	100MΩ Min.
3	withstand Voltage	500V AC (50Hz or 60 Hz 2mA) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.	No dielectric breakdown shall be occurred
Mechanical Performance			
4	Operation Force	Applied in the direction of operation. 	250±150gf
5	Terminal strength	The static load of 500gf shall be applied in the operating direction of the control unit for 15 seconds.	Shall be free from extreme wobble, vent and mechanical abnormality. not deformation of the appearance. The electronically performance requirement specified in item 1~4 shall be satisfied.
6	Control strength	The static load of 2kg shall be applied in the operating direction of the control unit for 15 seconds.	Shall be free from extreme wobble, vent and mechanical abnormality. not deformation of the appearance.
7	Solderability	The top of the terminals shall be dipped 2mm in the solder bath of 245±5°C for 3±0.5 seconds.	No anti-soldering and the coverage of dipping into solder must more than 75% was requested. *Except cover

Slide Switch

8	Shock	<p>Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F</p> <ol style="list-style-type: none"> 1) Acceleration: 50G 2) Action time: 11±1m seconds 3) Testing Direction: 6 sides 4) Test Cycle: 3 times in each direction 	As shown in item 2~6
Durability			
8	Life Test	<p>Endurance without load A switch shall be subject to 10,000 cycles at a speed of 15 to 20 cycles per min. without load.</p>	<ol style="list-style-type: none"> 1) Contact resistance : Less than 40mΩ 2) Value insulation resistance: More than 10MΩ. Every pray should not defect in appearance and mechanical; performance.
Environmental Endurance			
9	Cold Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made :</p> <ol style="list-style-type: none"> 1)Temperature : -25°C±2°C. 2)Time: 48 hours. 	<ol style="list-style-type: none"> 1) Contact resistance : Less than 40mΩ 2) Value insulation resistance: More than 10MΩ . 3) Every pray should not defect in appearance and mechanical; performance.
10	Heat Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made :</p> <ol style="list-style-type: none"> 1)Temperature : 70°C±2°C 2)Time: 48 hours 	Ditto
11	Humidity Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made :</p> <ol style="list-style-type: none"> 1)Temperature : 40°C±2°C 2)Relative Humidity :90~95% 3)Time: 96 hour 	Ditto
12	Change of temperature	<p>After 5 cycles of following conditions, the switch shall be allowed to stand under normal room temperature and humidity conditions for 1 hr, and measurement shall be made within, 1 hr after that. Water drops shall be removed.</p> <p>The diagram shows a temperature cycle with a high temperature plateau at 70±3°C for 30 minutes, followed by a low temperature plateau at -10±3°C for 10-15 minutes. The total duration of one cycle is 30 minutes.</p>	Ditto
13	Vibration	<p>Shall be vibrated in accordance with Method 201A of MIL-STD-202F</p> <ol style="list-style-type: none"> 1. Frequency: 10-55-10 Hz 1 min/cycle. 2. Direction: 3 vertical directions including the direction of operation. 3. Test Time: 2 hours each direction. 	As shown in item 2~5

14	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F 1. Acceleration: 50G. 2. Action Time : 11 ± 1 m sec. 3. Testing Direction: 6 sides. 4. Test cycle : 3 times in each direction	As shown in item 2~5
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Soldering Conditions



- 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 temperature depending on board's material, size, thickness, etc. Care, therefore, should 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

Part Number Table

Description	Part Number
Slide Switch, 8.6mm × 6.8mm, 2P2T	MPSL6NCHVR

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