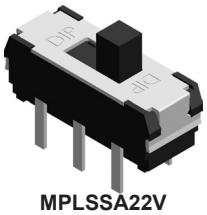
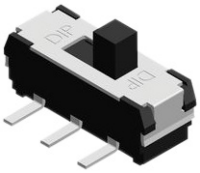
Slide Switches

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RoHS Compliant



MPLSSA22V



MPLSSAM22VR

Description

This specification describes “Dual In-Line Package Switches” mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

Specifications

Operating Temperature Range : -40°C to +85°C
Storage Temperature Range : -40°C to +85°C

Current Range:
Non-Switching : 100mA, 50V DC
Switching : 0.1A , 12V DC
Type of Actuation : Actuated by sliding
The shelf life of product is within 6 months.

Diagram for MPLSSA22V

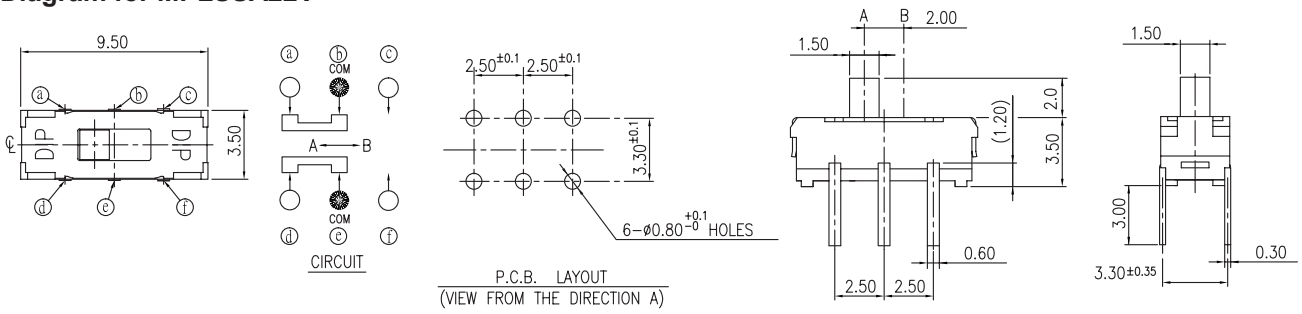
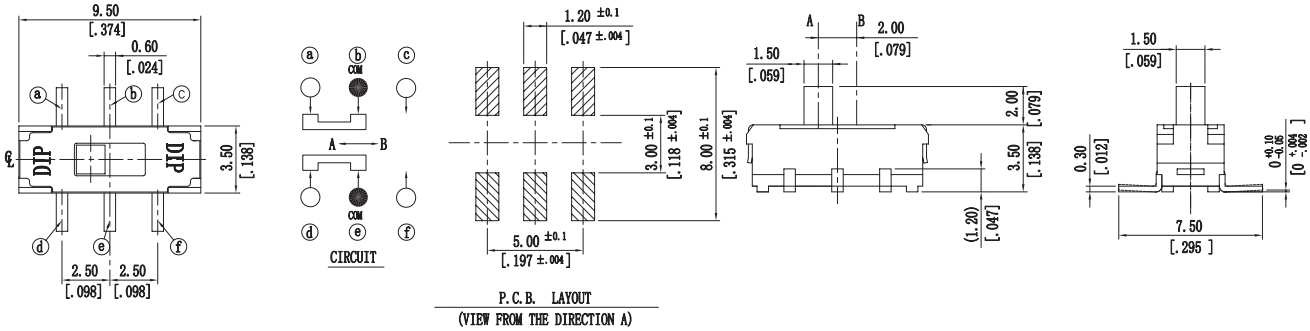
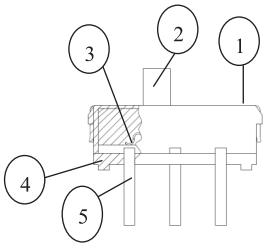


Diagram for MPLSSAM22VR



Item	Description	Materials	Treatment	Q’ty
1	Cover	Stainless Steel	-	1
2	Stem	High - Temp Thermoplastic Nylon UL94V - 0	Molded Black	
3	Contact	Phosphor Bronze	With Silver Plating	
4	Base	High-Temp Thermoplasitc LCP	Molded Black	
5	Terminal	Brass	With Silver Plating	

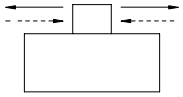


Dimensions : Millimetres
Tolerances : ±0.2mm

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

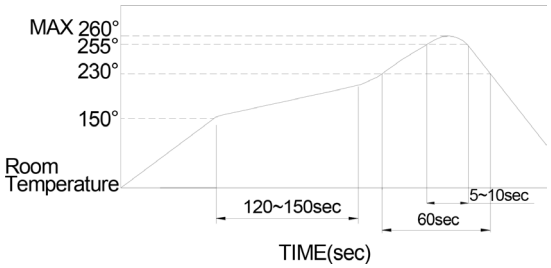
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Test Sequence

<table>
<tr><th>Description</th><th>Test Conditions</th><th>Requirements</th></tr>
<tr><td colspan="3">Electric Performance</td></tr>
<tr><td>Visual Examination</td><td>By visual examination check without any out pressure & testing.</td><td>There shall be no defects that affect the serviceability of the product.</td></tr>
<tr><td>Contact Resistance</td><td>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.</td><td>60mΩ max. (initial)</td></tr>
<tr><td>Insulation Resistance</td><td>500V DC, 1 minute ± 5 sec.</td><td>100MΩ Min.</td></tr>
<tr><td>Withstanding Voltage</td><td>500V AC (50Hz or 60 Hz) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.</td><td>No dielectric breakdown shall be occurred</td></tr>
<tr><td colspan="3">Mechanical Performance</td></tr>
<tr><td>Operation Force</td><td>Applied in the direction of operation.
</td><td>200±150gf</td></tr>
<tr><td>Stop Strength</td><td>(a)The static load of 2 kg shall be applied in the operating direction of the control unit for 15 seconds.
(b)The static load of 1 kg shall be applied in the right angle of the operating direction unit for 15 seconds.</td><td>There shall be no sign of electrical function out of order or damage.</td></tr>
<tr><td>Soldering Heat Resistance</td><td>1. Soldering Temperature
<table><tr><th>Temp.</th><th>Time</th></tr><tr><td>260°C ±5°C</td><td>3 ±1sec.</td></tr></table>2. Duration of Solder Immersion: 5±1 sec.
3. Frequency of Soldering Process: 2 times max.</td><td>As shown in item 2~6</td></tr>
<tr><td>Solderability</td><td>1. THROUGH HOLE TYPE Soldering Temperature:245±3°C
Lead-Free solder: M705E JIS Z 3282 Class A
(Tin 96.5%, Silver 3%, Copper 0.5%)
(Flux: 5-10 seconds.
(Duration of solder Immersion: 5±1 sec.
(SMT TYPE SEE PAGE 3/4</td><td>No anti-soldering and the coverage of dipping into solder must more than 75% was requested.</td></tr>
<tr><td colspan="3">Durability</td></tr>
<tr><td>Operation Life</td><td>Measurements shall be made following the test set forth below:
1)25 mA, 24V DC resistive load
2)Rate of Operation: 15~20 cycles/ minute
3)Cycle of Operation: 10,000 cycles.</td><td>1) As shown in item 3,4
2) Contact Resistance: 120mΩ max. (final-after test)</td></tr>
</table>

Description	Test Conditions	Requirements
Weather-Proof		
Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : 1. Temperature : -40°C ±2°C 2. Time: 96 hours	1. As shown in item 2~5 2. Operating Force: Within ±30% of item 6
Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : 1) Temperature : 85°C±2°C 2) Time: 96 hours	1.As shown in item 3~6 2. Contact Resistance: 120mΩ max.
Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : 1) Temperature : 40°C±2°C 2) Relative Humidity :90~95% 3) Time: 96 hours	1. As shown in item 4,6 2. Contact Resistance: 120mΩ max. 3. Insulation Resistance : 10MΩ min.

Soldering Conditions



- The condition mentioned above is the temperature on the Cu foil of the P.C.B 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, Vertical Through Hole, 2P2T	MPLSSA22-V
Slide Switch, Vertical, Surface Mount, 2P2T	MPLSSAM22VR

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