

## Latching Subminiature PCB Switch



### DESCRIPTION

A 2-pole subminiature PCB mounting latching push switch.

### DISTINCTIVE FEATURES

- PCB mounting
- Subminiature size
- Latching type
- Non-shorting contacts

### APPLICATIONS

Suitable for various switching purposes in all home electronic equipment and industrial electronic equipment.

PCB

DPDT

Latching





## ELECTRICAL SPECIFICATION

Maximum contact voltage	30V DC
Maximum current	100 mA
Contact resistance	40 mΩ max
Insulation resistance	100 MΩ min (Test conditions 500V DC)
Dielectric strength	AC500V for 1 minute



## GENERAL SPECIFICATION

Type	Latching Subminiature PCB mounting switch
Contact Configuration	DPDT
RoHS Compliant	Yes



## MATERIALS

		Quantity per switch (see drawing)
Spring Stopper	Steel	1
Spring	Stainless steel	1
Cover	PA66-101L (polyamide) grey	1
Lock pin	Stainless steel	1
Spring plate	Stainless steel	1
Base frame	PA66-70G33L (polyamide) grey	1
Actuator	PA66-101L (polyamide) white	1
Clip	Phosphor Bronze	2
Terminal board	PA66-70G33L (polyamide) grey	1
Terminal	Brass with silver plating	2



## ENVIRONMENTAL/OPERATING SPECIFICATION

Operational temperature	-40°C to + 85°C
Electrical life	10,000 cycles
Mechanical life	10,000 cycles
Operating force	250 gf +/- 150
Lock travel	2.0mm ± 0.3
Total travel	3.0mm ± 0.3
Contact timing	Non shorting type
Resistance of soldering heat	<ul style="list-style-type: none"> <li>• Manual soldering: 300±5°C in 3 seconds</li> <li>• Dip solderin: 260±5°C in 3 seconds</li> </ul>
Durability test (operating life without load test after 10,000 cycles)	<ul style="list-style-type: none"> <li>• Contact resistance: 50mΩ max.</li> <li>• Operating force: within the range ±30% of operating force specification</li> <li>• Insulation resistance and Dielectric strength shall meet the requirements in the electrical specification</li> </ul>

Item	Test Conditions	Criteria
Robustness of terminal	Static load of 500 gf applied for one minute	Terminals may be bent, but loosened terminal or damage to the board is not permitted
Robustness of actuator	Static load of 5Kgf applied in operating direction for one minute	Actuator broken or any visible damage to switch construction is not permitted
Solderability	(260 +/- 5°C in 3 seconds)	Solder coverage 75% min
Enviromental performance (cold)	-40°C +/- 2°C for 96 hours	<ul style="list-style-type: none"> <li>• It should meet requirements of the electrical performance</li> <li>• Mechanical performance should remain normal</li> </ul>
Enviromental performance (dry heat)	85°C +/- 2°C for 96 hours	<ul style="list-style-type: none"> <li>• Contact resistance should be less than 50 mΩ</li> <li>• It should meet requirements of the insulation resistance and the dielectric strength</li> <li>• Mechanical performance should remain normal.</li> </ul>
Enviromental performance (damp heat)	40°C +/- 2°C 90% ~ 95%rh for 96 hours	<ul style="list-style-type: none"> <li>• Contact resistance should be less than 50 mΩ</li> <li>• insulation resistance should be higher than 10 mΩ</li> <li>• Dielectric strength should not change</li> <li>• Mechanical performance should remain normal</li> </ul>



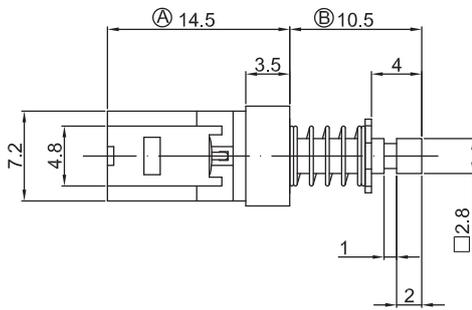
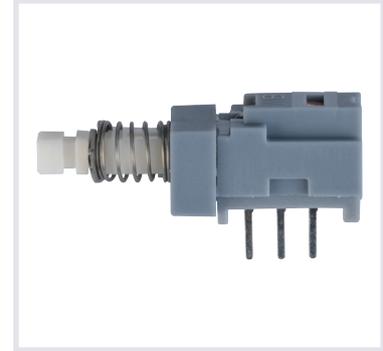
## TERMINALS

Solder pins	Pitch 2.5mm
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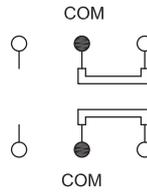


## DIMENSIONS/DRAWINGS

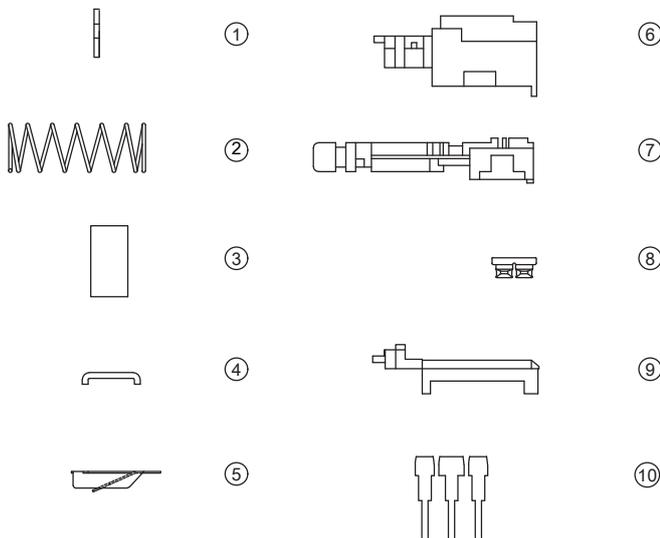
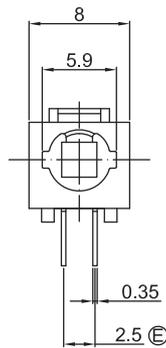
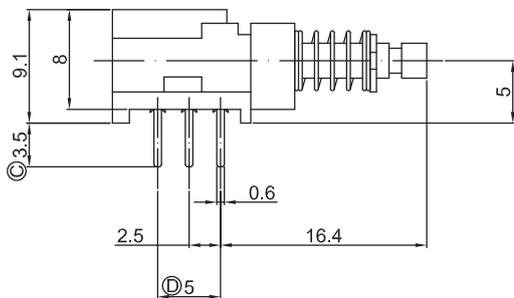
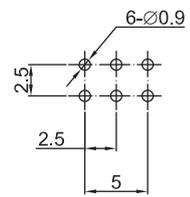
Units	mm - unless stated otherwise
Dimensions (mm)	25 x 8 x 9.1
Weight (grams)	1.1



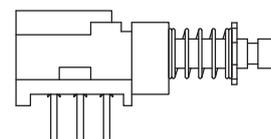
### SCHMATIC



### P.C.B. LAYOUT



No.	Part	Material
1	Spring Stopper	Steel
2	Spring	Stainless Steel
3	Cover	PA66-101L
4	Lock Pin	Stainless Steel
5	Spring Plate	Stainless Steel
6	Base Frame	PA66-70G33L
7	Actuator	PA66-101L
8	Clip	Phospor Bronze
9	Terminal Board	PA66-70G33L
10	Terminal	Brass





## OPTIONS (MOQ may apply)

78-0385 Switch options	2P2T, 4P2T, 6P2T, lock and momentary versions are available
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Accessories and Associated Parts		
Part	Part number	Description
Knobs	78-0386	Black knob Suitable for use with R-TECH 78-0385 2 Pole Latching Subminiature PCB Switch



## PART NUMBER TABLE

Part Number	UNSPSC	EAN	Country Of Origin
78-0385	39122216	5053556003150	China



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