TITLE	PRODUCT SPECIFICATIONS	
MODEL No.	SLIDE SWITCHES (SMD TYPE)	PAGE 1/3

1. General

1.1 Switch rating : DC 4V, 0.3A Max

1.2 Operating temperature range : -10℃ ~ 60℃

1.3 Dimensions : Refer to individual product drawing.

1.4 Appearance : Switch shall have good finishing,no rust,crack or plating failures.

1.5 Standard conditions : Unless otherwise specified, the test and measurements

Ambient temperature : 5～35℃

Relative humidity : 45～85%RH

Air pressure : 86～106kPa (860～1060mbar)

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℃

Relative humidity : 60±5%RH

Air pressure : 86～106kPa (860～1060mbar)

2. Performance

2.1 Electrical characteristics

	Items	Test conditions	Criteria
2.1.1	Contact resistance	Applying a static load twice the actuating force to the center of the stem, measurements shall be made with a 1kHz small-current contact resistance meter.	70mΩ max
2.1.2	Insulation resistance	Measurements shall be made following application of DC 100V pote-ntial across terminals and frame for one minute.	100MΩ min
2.1.3	Dielectric withstandin voltage	AC 100V (50Hz or 60Hz) shall be applied across terminals and frame for one minute.	There shall be no breakdown

2.2 Mechanical specification

	Items	Test conditions	Criteria
2.2.1	Operating force	Gradually increasing the load applied to the center of the stem, the maximum load required for the stem to come to a stop shall be measured.	Details are given in the assembly drawi-ngs.
2.2.2	Travel	Applying a static load twice the actuating force to the center of the stem, the travel distance for the stem to come to a stop shall be measured.	Details are given in the assembly drawi-ngs.

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2.2. Mechanical characteristics

	Items	Test conditions	Criteria
2.2.3	Stop strength	Astatic load of 1.02kgf shall be applied in the direction of stem operation for a period of 15 seconds.	No damage (Electrical and mechanicla)
2.2.4	Stem strength	The maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.	1kgf min
2.2.5	Terminal strength	A force of 306gf being applied in one direction on the tip of the terminal for one minute and only one time to each terminal.	The terminal may be deformed but shall not sustain any trouble such as deviation and breaking of terminal and breaking of insulation material. Electrical performance shall be assured.
2.2.6	Vibration test	1) Amplitude : 1.5mm 2) Sweep rate : 10-55-10Hz for 1 minute. 3) Sweep method : Logarithmic Frequency sweep rate. 4) Vibration direction : X.Y.Z (3 directions) 5) Time : Each direction 2 hours (Total 6 hours)	No 2.1 and 2.2.1 to 2.2.2 shall be satisfied.
2.2.7	Soldering heat test	Soldering area : t/2 of P.W.B thickness (P.W.B:t=1.6) Soldering temperature : 260±5℃ Soldering time : 5sec max	No damage (Electrical and mechanical)

2.3 Climatic specification

	Items	Test conditions	Criteria
2.3.1	Cold test	1) Temperature : -20±2℃ 2) Duration of test : 96 hours 3) Take off a drop water 4) Standard condition after test : 1 hour	Contact resistance : 140mΩ max Insulation resistance : 50MΩ Min (No 2.3.1 to 2.3.4) : 10MΩ Min (No 2.3.3) Withstanding voltage : 250V AC, 1minute Insulation unbroken Operating force: within +10%, -30% of specification There shall be no defects in appearance or in the mechanical fuctions.
2.3.2	Heat test	1) Temperature : 85±2℃ 2) Duration of test : 96 hours 3) Standard condition after test : 1 hour	
2.3.3	Humidity life test	1) Temperature : 60±2℃ 2) Relative humidity : 90～95% 3) Duration of test : 96 hours 4) Take off a drop water 5) Standard conditions after test : 1 hour	
2.3.4	Operating life test	1) DC 5V, 5mA Resistance load 2) Operation speed : 15～20 cycles/min 3) Push force : Maximum value of operation force 4) Cycle of operation : 10,000 cycles	

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3. SOLDERING

3.1 Auto soldering conditions

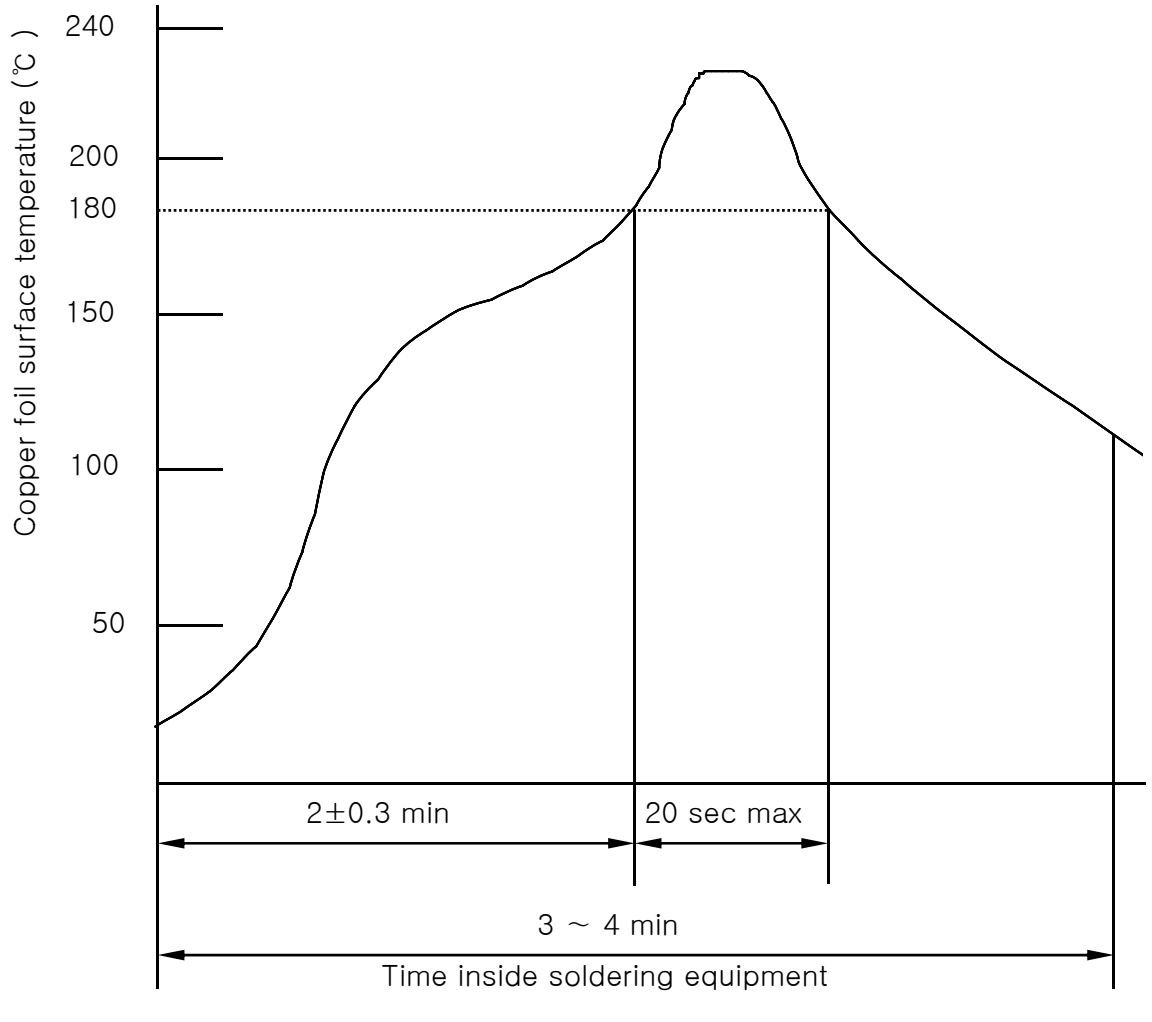
Items	Conditions
Preheat temperature	110℃ max (Environmental temperature of soldering surface of P.W.B)
Preheat time	60 sec max
Area of flux	1/2 max of P.W.B thickness
Temperature of solder	240℃ max
Time of immersion	Within 5 sec
Soldering number	Within 2 times (But should bring down heat of the first soldering)
Printed wiring board	Single sided copper-clad laminates

3. Soldering

Reflow soldering conditions

Preheat : termperature on the copper foil surface should reach 180℃, 2±0.3 minutes after the P.W.P entered into the soldering equipment.

Soldering heat : Temperature on ther copper foil surface should reach the peak temperatur within 20 seconds after the P.W.B entered into soldering heat zone.

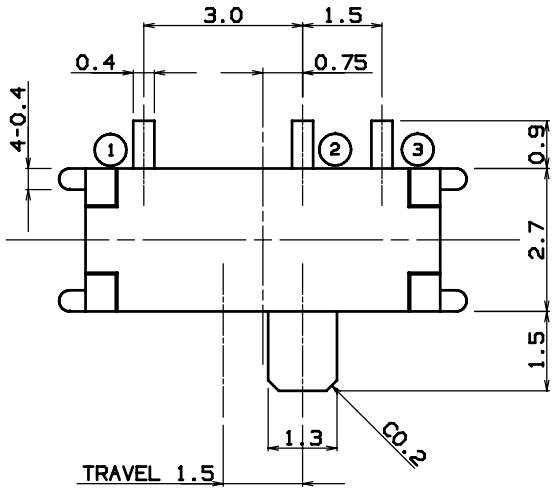


Temperature Profile

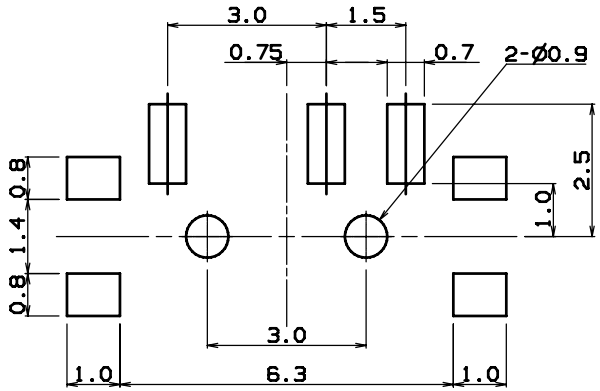
TITLE	PRODUCT SPECIFICATIONS	
MODEL No.	SLIDE SWITCH	PAGE 1/1

Caution

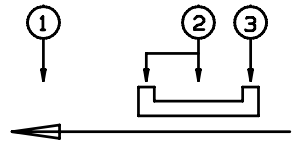
1. Appling load to terminals during soldering under certain conditions may cause deformation and electrical property degradation.
2. Avoid use of water-soluble soldering flux, since it may corrode the switches.
3. Check and conform to soldering requirements under actual mass production conditions.
4. When soldering twice, wait until the first soldered portion cools to normal temperature. Continuous heating will deform the external portions, loosen or dislodge terminals, or may deteriorate their electrical characteristics.
5. Flux from around and above the PC board should not adhere to the switches.
6. After mounting the switches, if you intend to put the board into an oven in other to harden adhesive for other parts, please consult with us.
7. If you use a through-hole PC board or a PC board thinner or ticker than the recommendation, hear may be greater heat stress. Verify the soldering conditions thoroughly before use..
8. Solder the switches with detent at the detent position. Soldering switches fixed at the center of the detent may deform the detent machanisms.
9. No cleaning.
10. Protect small and thin switches from external forces in the set mounting process.
11. Tighten the mounting screws by applying the specified torque. Tightening with larger torque than the specified one will result in malfunction or breakage of screws.
12. The products are designed and manufactured for direct current resistance. Contact us for use of other resistances such as inductive (L) or capacitive (C) .
13. The switch will be break if you apply a greater stress than that specified. Take great care not to let the switch be subject to greater stress than specified.
14. Insert these switches to the specified mounting surface and mount them horizontally. If not mounted horizontally, these switches will malfunction.
15. Use of the switches in a dusty environment may lead the dusts entering through the openings and cause imperfect contact or malfunction. Take this into account for set design.
16. Corrosive gas if generated by peripheral parts of a set, malfunction such as imperfect contact may occur. Thorough investigation shall be required beforehand.
17. Storage
    ① Storage the products as delivered, at a normal temperature and humidity, without direct sunshine and corrosive gas ambient. Use them at an earliest possible timing, not later than six months upon receipt.
    ② After breaking the seal, keep the products in a plastic bag to prevent out ambient air, store them in the same environment as above, and use all as soon as possible.
    ③ Do not stack too many switches.
18. All specification can be changed to improve performance without any notice.

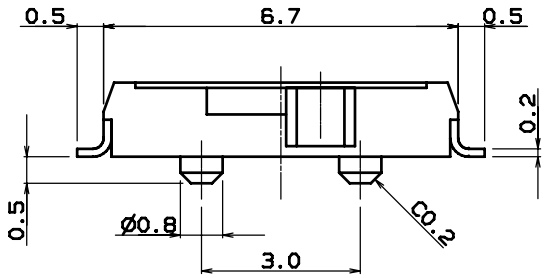


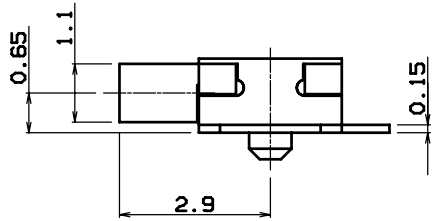
P.C.B MOUTING HOLES



CIRCUIT DIAGRAM







NOTE

1. RATING : DC 4V 0.3A MAX
2. CIRCUIT : 1C2P
3. TRAVEL : 1.5mm
4. CONTACT RESIS' :70mΩ MAX
5. OPERATING FORCE :150 ±100gf
6. OPERATING LIFE : 10,000 CYCLES
7. GENERAL TOLERANCE : ±0.3

NO	PART NAME	Q'TY	MATERIAL	REMARK
1	CASE	1	LCP	BLACK
2	COVER	1	C2680R-EH	Ag PLATE
3	SLIDER	1	PA6T	
4	CLIP	1	C5210R Ag	0.5μ
5	SPRING PLATE	1	SUS 301	
6	TERMINAL	1	C2680R-EH	Ag PLATE

No.	PART NAME	Q'TY	MATERIAL	SIZE	TREAT.	REMARKS
5						
4						
3						
2						
1						

NO.	DATE	NOTE	SIGN

3RD ANGLE PROJECTION	UNIT m/m	SCALE	MODEL
APPROVED	CHECKED	DESIGNED	MS 1201AP
			DWG.NAME: ASS'Y DIAGRAM
			DWG.NO.

MYUNG DO SYSTEM