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SLIDE SWITCH	SS12D11-G5-4.7/618	A/00		3 /11

1、 GENERAL

1.1 Operating Temperature Range

-25°C ~ 85°C (Normal humidity, normal air pressure)

1.2 Storage Temperature Range

-5°C ~ 40°C (Normal humidity, normal air pressure)

1.3 Test Conditions

Unless otherwise specified, tests and measurement shall be made in the following standard conditions:

Normal temperature.....5°C ~ 35°C

Normal humidity.....relative humidity 25% ~ 85%

Normal air pressure.....86Kpa ~ 106Kpa

If any doubt arise from the judgment, tests shall be conducted at the following conditions:

Temperature.....20°C ±2°C

Relative humidity.....65%±5%

Air pressure.....86Kpa ~ 106Kpa

1.4 Storage method

1. Ensure that the product without package breaking or wetting before use.

2. Storage conditions:

Storage temperature: -5 ~ 35 C;

Storage humidity: 25% ~ 80%;

Unopened status: Use up the product as soon as possible before 6 months. (calculated from shipment date). Over 6 months, please make sure below before use it: terminal without oxidation or blackening, plastic parts without moisture absorption or bubble, ensure solderability.

Opened status: use up within 1 month;

Storage precautions: Please avoid the following environment: with high humidity, high temperature, corrosive gases and direct sunlight.

3. Do not stack too many switches.

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2、 Detailed specification

2.1 Appearance: There should be no defects that affect the serviceability of product.

2.2 Style and dimension: shall conform to the assemble drawings.

2.3 FUNCTION: 1 P 2 T

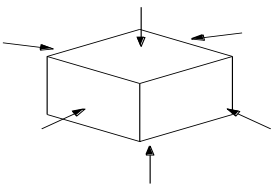
(Details of contact arrangement are given in the assembly drawings.)

2.4 Ratings: AC 125V 6A, 250V 3A

3. ELECTRICAL SPECIFICATION

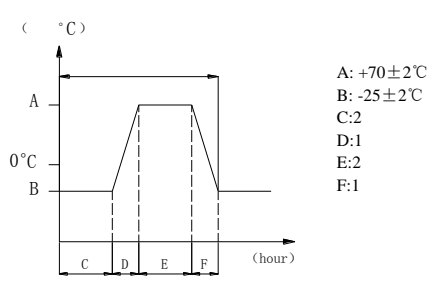
		TEST CONDITIONS	REQUIREMENTS
3.1	Contact Resistance	Measured at 1KHz small current (100mA or less)	$\leq 100m\Omega$
3.2	Insulation Resistance	Measurement shall be made following application of 250V DC potential, across terminals, and across terminals and cover, for one minute.	$\geq 100M\Omega$
3.3	Dielectric voltage proof	250VAC (50~60Hz, cut-off current 10mA) is applied between non-connected terminals and between terminals and the metal frame for 5 s.	There should be no breakdown and flashover

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ITEM	TEST CONDITIONS			REQUIREMENTS
4. MECHANICAL SPECIFICATION				
4.1	Operating Force	LATERAL PUSH(THE POINT 3mm FROM THE TIP OF THE ACTUATOR(KNOB).)		250±100 gf
4.2	Full Travel	In the horizontal direction, the switch handle turns, switching from one position to the next gear with a force equal to 2 times, moving the range finder handle.		2.6±0.2mm
4.3	Stem Strength	At the front of the push handle, add (10N) force test along the running direction, and the time is 30 seconds.		

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ITEM	TEST CONDITIONS			REQUIREMENTS
4.4	TERMINAL STRENGTH	Add 300g force test in either direction at the front of the row foot, and the time is 15 seconds.		
4.5	Vibration	Measurement shall be made following the test set forth below: <ol style="list-style-type: none"> (1) Vibration frequency range: 10 to 55 to 10Hz (2) Amplitude: 1.5mm (3) Direction of vibration: Three mutually perpendicular direction including the direction of stem travel (4) Duration: Each 2 hours. 		
4.6	Shock	Test by following conditions <div style="text-align: center; margin: 10px 0;">  </div> <ol style="list-style-type: none"> (1) installation method: normal (2) Acceleration: 784m/s² (3) Acting time: 11ms (4) Test direction: 6 directions Times: 3 times/direction ,total 18 times		
				Item 3 Item 4.1 Item 4.2

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5. ENVIRONMENTAL SPECIFICATION

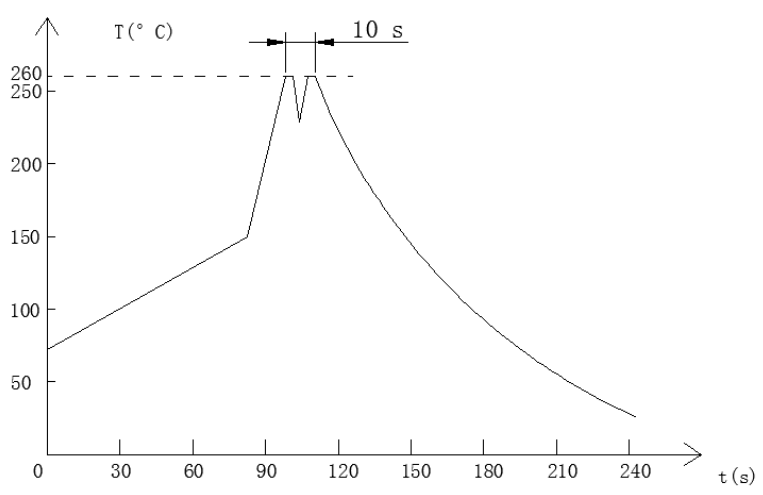
ITEM	TEST CONDITIONS	REQUIREMENTS
5.1	Resistance to low temperature (1) Temperature : $-25 \pm 2^{\circ}\text{C}$ (2) Time: 96h	Item3 Item4.1 Item4.2
5.2	Heat resistance (1) temperature: $70 \pm 2^{\circ}\text{C}$ (2) time: 96h	Item3 Item4.1 Item4.2
5.3	Change of temperature After 5 cycles of following conditions, the sample shall be allowed to stand under normal temperature and humidity conditions for 1 h. and measurements shall be made. During the test water drops shall be removed. 	Item3 Item4.1 Item4.2
5.4	Moisture resistance (1) temperature: $40 \pm 2^{\circ}\text{C}$ (2) relative humidity: 90% to 95% (3) time: 96h	Contact resistance $\leq 200\text{m}\Omega$ Insulation Resistance $\geq 10\text{M}\Omega$ Item3.3 Item3.4 Item4.1 Item4.2

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ITEM		TEST CONDITIONS		REQUIREMENTS
5.5	Sulfuration resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made:</p> <p>(1) H₂S gas concentration: 3ppm ± 1ppm (2) Time: 72h (3) temperature: 40 ± 2 °C (90 ~ 95%RH)</p>		Contact resistance ≤ 200mΩ Item3.3 Item3.4 Item4.1 Item4.2
5.6	Salt Mist	<p>The switch shall be checked after following test:</p> <p>(1) temperature: 35 °C ± 2 °C (2) salt solution : 5 ± 1 % (solids by mass) (3) Time: 8 ± 1h</p> <p>After test, salt deposit shall be removed by running water.</p>		No remarkable corrosion shall be recognized in metal part.
5.7	Operation life	<p>(1) Rate of operation: 20 times/min (2) fault-free life: 5,000 cycles</p>		Contact resistance ≤ 1Ω Insulation Resistance ≥ 10MΩ ON-20ms max Bounce OFF-20ms max Operating Force: initial value ± 30% Item3.3 Item4.1

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ITEM		TEST CONDITIONS			REQUIREMENTS
5.8	Solderability	Measurements shall be made following the test set forth below: (1) Solder temperature : 230 ± 5 °C (2) Immersion time: $3s \pm 0.5s$			Except for the edge, the coating should cover a minimum 90%
6. SOLDERING CONDITIONS:					
6.1	Hand soldering	Please practice according to below conditions: (1) Soldering temperature: ≤ 350 °C (2) Continuous soldering time: ≤ 3 s			

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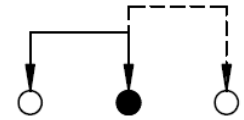
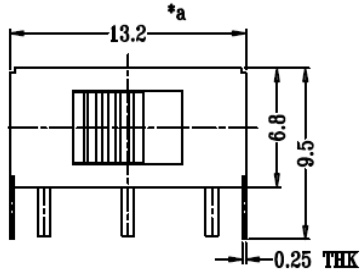
ITEM	Recommended conditions
6.2 Wave-soldering	 <p>The graph shows a temperature profile for wave-soldering. The vertical axis is labeled T (° C) and ranges from 0 to 260 with major ticks every 50 units. The horizontal axis is labeled t (s) and ranges from 0 to 240 with major ticks every 30 units. The curve starts at approximately 70°C at t=0, rises to 150°C at t=90, then to a peak of 260°C at t=100. There is a small dip to 250°C at t=105, followed by a second peak of 260°C at t=110. A horizontal dashed line is drawn at 260°C, and a double-headed arrow above it indicates a 10-second duration between the two peaks. After the second peak, the temperature gradually decreases to approximately 30°C at t=240.</p>

(Notes):

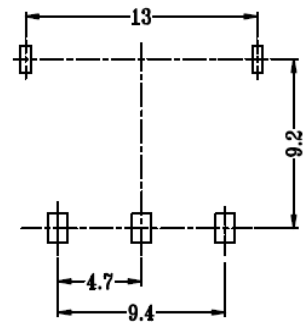
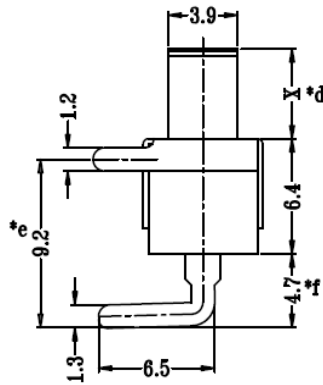
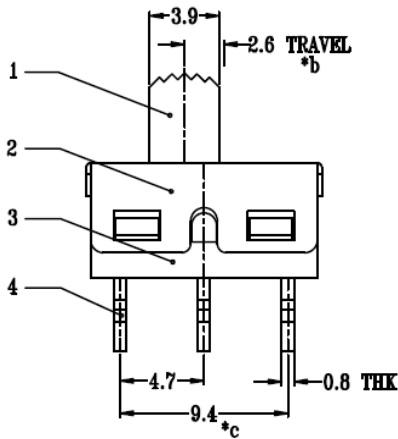
- a、 The pad size of the printed substrate is shown in the product diagram.
- b、 In the case of using soldering iron, soldering conditions shall be 350°C max and 3 sec.max.
- c、 Prevent flux penetration from the top of the switch
- d、 After switches were soldered, please be careful not to clean switches with solvent or other similar products.
- e、 Right after switches were soldered; please be careful not to load to on the knobs of switches.
- f、 Please be cautions not to give excessive static load or shock to switches.
- g、 Please be careful not to pile up P.W.B. after switches were soldered

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SCHMATIC (NON-SHORTING)



P.C.B LAYOUT
BOTTOM VIEW

General tolerance: $\pm 0.2\text{mm}$ $X=5 \pm 0.2\text{mm}$

NO.	NAME	MATERIAL	QTY.	FINISHING
1	KNOB	PA66	1	BLACK
2	COVER	SUS	1	NATURAL
3	CASE	PA66	1	BLACK
4	TERMINAL	BRASS STRIP	3	Ag PLATED
5	CONTACT	BRASS STRIP	1	Ag PLATED
6	SPING	STEEL WIRE	1	NATURAL
7	STEEL BALL	STEEL	1	NATURAL