

SWITCH TYPE	SLIDE SWITCHES	MODEL NO.	MSL031B-01M-23
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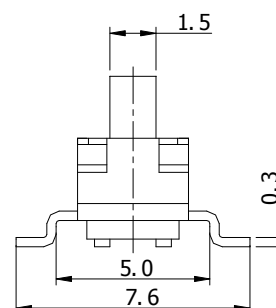
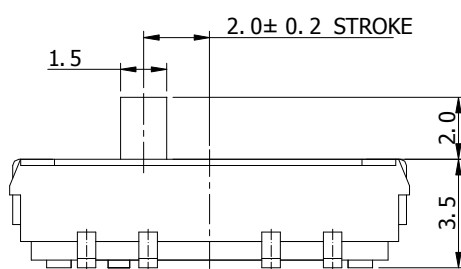
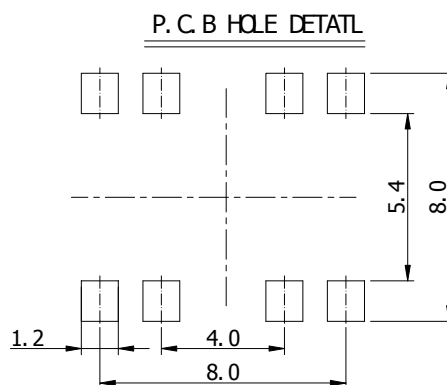
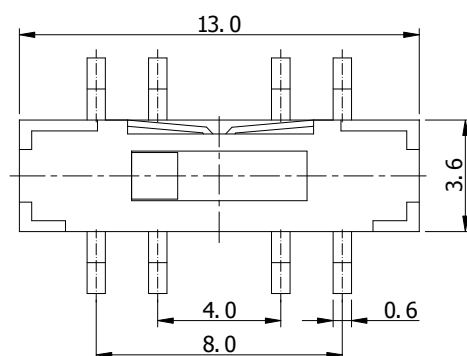
1. Functional spec.

1.1 Rated Voltage	DC6V	1.6 Free Position	
1.2 Rated Current	0.3A	1.7 Operating Position	
1.3 Contact Resistance	$\leq 70\text{m}\Omega$ (初始值)	1.8 Position Travel	$2.0 \pm 0.2\text{mm}$
1.4 Operating Force	$250 \pm 150\text{gf}$	1.9 Return Force	
1.5 Bounce Time		1.10	

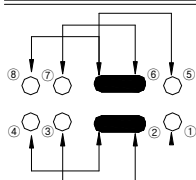
2. Reliable Rating

2.1 Mechanical Life	10,000 CYCLES	2.5 Soldering Process	Hand soldering · Reflow soldering
2.2 Electrical Life	10,000 CYCLES	2.6 Shipping Temper	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$
2.3 Insulation Resistance	$\geq 100\text{M}\Omega$ DC100V	2.7 Ambient Humidity Used	$< 85\% \text{ RH}$
2.4 Withstand Voltage	AC500V 1 minute	2.8	

3. Dimension Drawing



SCHEMATIC(NON-SHORTING)



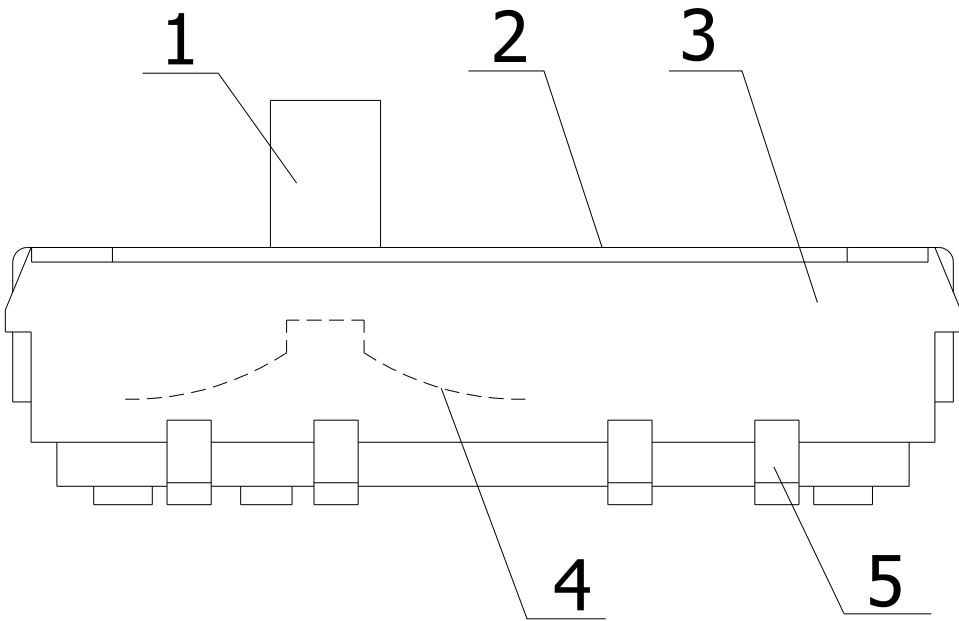
Revision	Description		Date	Revisor
Drawing No.	C/0		Tolerance	± 0.2
Drawing Model.	SPECIFICATION OF STANDARD TYPE		Unit	mm
Prepared	Polly. Pang	Reviewed	Tony. Yang	Approved
Kingsel. Wu		Effective date	20100323	

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SWEETA PRODUCTS CORPORATION

SERIES		SLIDE SWITCHES (MSL031)		Issuance date:		20060801	
Document No.		DIC/PE031-014		Edition	C	Page	1/3
NO.	Part Name	Q'TY	Generic Class		SGS report No.		
1	Stem	1	PA6T		See SGS Report		
2	Case	1	SUS301		See SGS Report		
3	Base	1	PA6T		See SGS Report		
4	Spring Plate	2	C5210		See SGS Report		
5	Terminal	8	C2680		See SGS Report		

Structure chart:



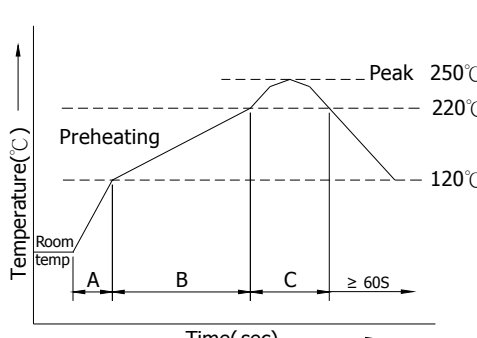
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SERIES		SLIDE SWITCHES (MSL031)		Issuance date:		20060801		
Document No.		DIC/PE031-014		Edition		C	Page	2/4
1、General：								
1.1 Switch rating:		DC 6V, 0.3A						
1.2 Operating temperature range		-25℃~70℃						
1.3 Preservative temperature range		-30℃~70℃						
1.4 Storage humidity range		<85%RH						
2.Performance								
2.1 Electrical characteristics								
Items			Test conditions				Criteria	
2.1.1		Contact resistance	Applying a static load twice the operating force to the stem, measurements shall be made between the terminals. Measurement shall be made with a contact resistance meter for 2mΩ precision under the condition which a voltage of DC 5V and a current of 0.1A shall be applied between the terminals.				Refer to individual product drawing.	
2.1.2		Insulation resistance	Spec. voltage (Refer to the 2.3 item of spec. drawing) is applied between each pair of terminals and between the terminal and the metal frame for one minute. Measurement shall be made with a test instrument of insulation resistance under the condition Spec. voltage is applied between the terminals.				Refer to individual product drawing.	
2.1.3		Dielectric withstand in voltage	Spec. voltage (Refer to the 2.4 item of spec. drawing)shall be applied across terminals and frame for one minute.				There shall be no breakdown	
3.Mechanical characteristics								
3.1		Operation force	Placing the switch such that the direction of switch operation is vertical, and then gradually increasing the load applied to the stem, the maximum load for the stem to come to operating position shall be measured.				Refer to individual product drawing.	
3.2		Terminal strength	A static load of 500gf Max shall be applied to the tip of the terminal for 30 sec. in any direction.				Electrical characteristics shall be satisfied without damage or excessive looseness of terminals.	

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Items		Test conditions			Criteria																														
3.3	Displacement of actuator(Knob)	A static load of 500gf Max shall be applied to the terminal for 15 Sec. In any direction.			Electrical characteristics shall be satisfied without damage or excessive looseness of terminals.																														
4. soldering characteristics																																			
4.1	Hand soldering	Use a soldering iron of 30 watts, controlled at 350-360°C approximately 3 seconds 1time while applying solder.			A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed. There shall be no defects in appearance or in the mechanical functions.																														
4.2	Reflow soldering	<p>When applying reflow soldering, the peak temperature of the reflow Oven should be set to 250°C max.</p> <p>Condition for soldering (Reflow & Non-washable Type) Temperature Profile</p> <div></div> <table><tr><td></td><td>Components size</td><td></td><td>Unit</td></tr><tr><td>A</td><td>Temp. rise gradient</td><td>40S</td><td>sec</td></tr><tr><td rowspan="2">B</td><td>Heating time</td><td>60- 120S</td><td>sec</td></tr><tr><td>Heating temperature</td><td>120- 220°C</td><td>°C</td></tr><tr><td rowspan="3">C</td><td>Time over 220°C</td><td>60- 90S</td><td>sec</td></tr><tr><td>Peak temperature</td><td>250</td><td>°C</td></tr><tr><td>Peak-temp. hold time</td><td>Mom</td><td>sec</td></tr><tr><td colspan="2">Soldering</td><td>1</td><td>times</td></tr></table>				Components size		Unit	A	Temp. rise gradient	40S	sec	B	Heating time	60- 120S	sec	Heating temperature	120- 220°C	°C	C	Time over 220°C	60- 90S	sec	Peak temperature	250	°C	Peak-temp. hold time	Mom	sec	Soldering		1	times	There shall be no defects in appearance or in the mechanical functions.	
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5. Durability characteristic:							
Items		Test conditions			Criteria		
5.1	Mechanical life	(1) Without loading (2) Operating speed : 15 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 10,000 cycles			After test: (1)Contact resistance: 1 ohm Max. (2)Bounce: 5m sec. Max. (3)Withstand voltage: AC500V, 1 minute (4)Operating force: 30% of initial value (5)There shall be no defects in appearance or in the mechanical functions.		
5.2	Electrical life	(1) which the load of 0.3A DC 6V (2) Operating speed : 10 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 10,000 cycles					
6. Packing explaintion							
6.1 500 pcs for one bag, 8 bags for one small box, 6 small boxes for one big box.							
7. Special Requirements							
7.1 Hazardous Substance Management: Follow environmental requirements: Hazardous Substance DIC/WI/G506.							
8. Quality records of delivered goods							
8.1Package boxes or package bags should be attached labels or identifiers of Model No., Quantity and Quality Pursuing No.							
8.2 There shall be quality records of inspection and test in package boxed.							