SWEETA PRODUCTS CORPORATION

SWITCH TYPE	SLIDE SWITCHES	MODEL NO.	MSL038-04MY7-22-T

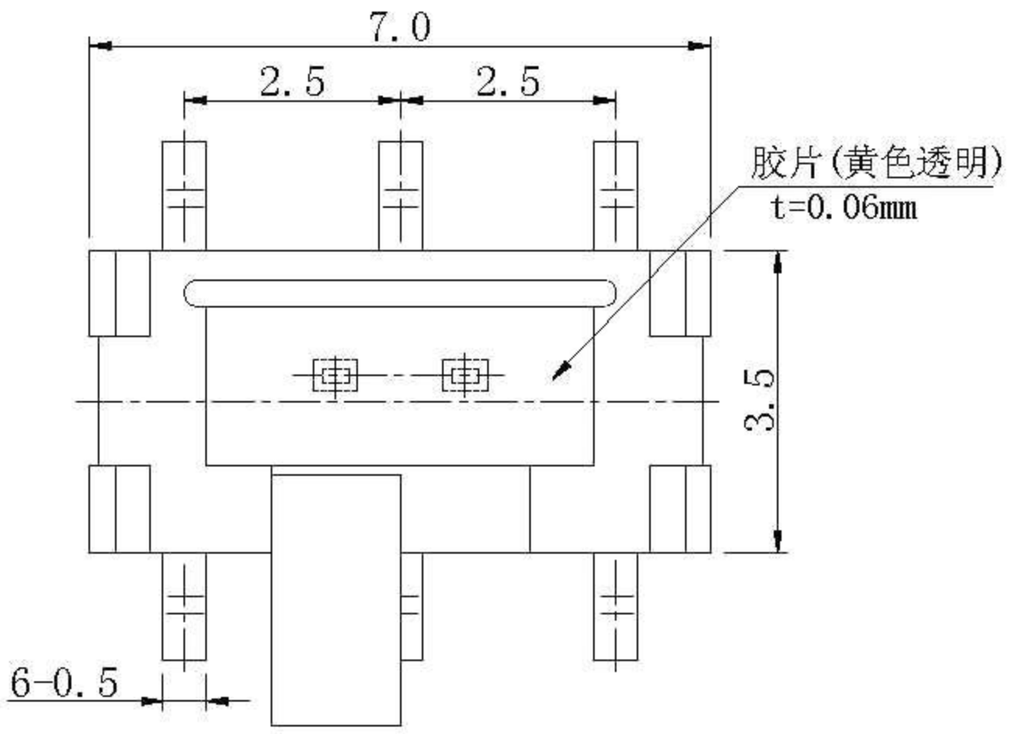
1. Functional spec.

1.1 Rated Voltage	DC4V	1.6 Free Position	
1.2 Rated Current	0.3 A	1.7 Operating Position	
1.3 Contact Resistance	≤100mΩ (initial value)	1.8 Position Travel	1.5±0.2mm
1.4 Operating Force	200±100gf	1.9 Return Force	
1.5 Bounce Time		1.10	

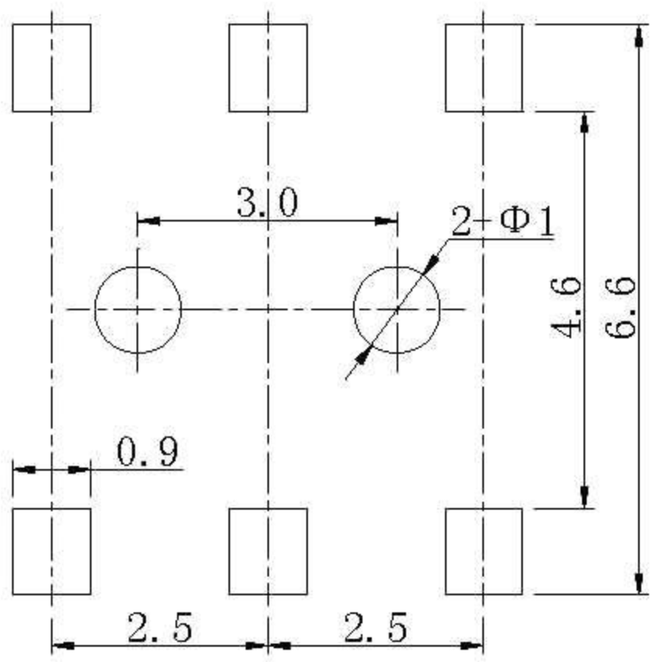
2.Reliable Rating

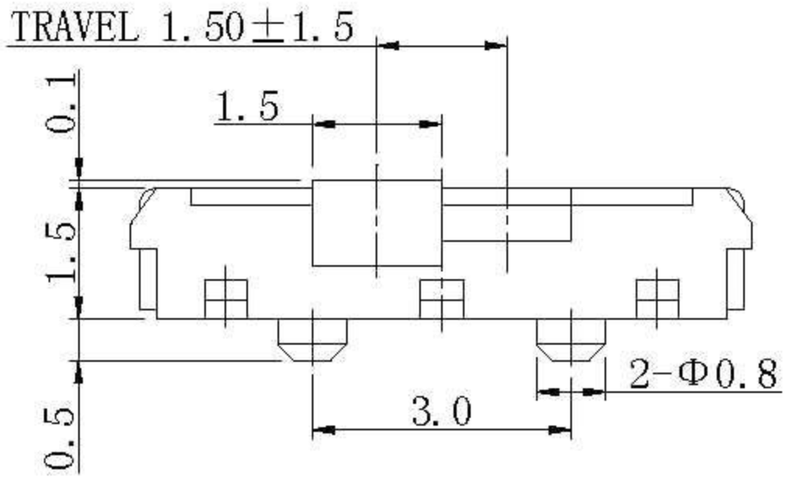
2.1 Mechanical Life	10,000 CYCLES	2.5 Soldering Process	Hand Soldering、Reflow soldering
2.2 Electrical Life	10,000 CYCLES	2.6 Shipping Temper	-25℃ ～ 80℃
2.3 Insulation Resistance	≥100MΩ DC100V	2.7 Ambient Humidity Used	<85%RH
2.4 Withstand Voltage	AC100V 1 minute	2.8	

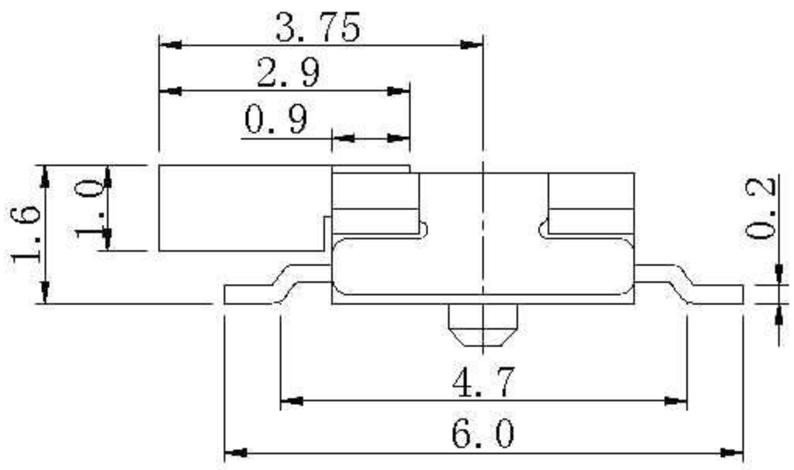
3. Dimension Drawing



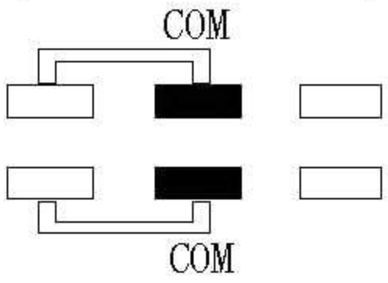
P. C. B LAYOUT







CIRCUIT DIACRAM



Revision	Description					Date	Revisor
Drawing No.				C/0		Tolerance	±0.2
Drawing Model.	SPECIFICATION OF STANDARD TYPE					Unit	mm
Prepared	Angel. Lee	Reviewed	Tony. Yang	Approved	Kingsel. Wu	Effective date	20080201

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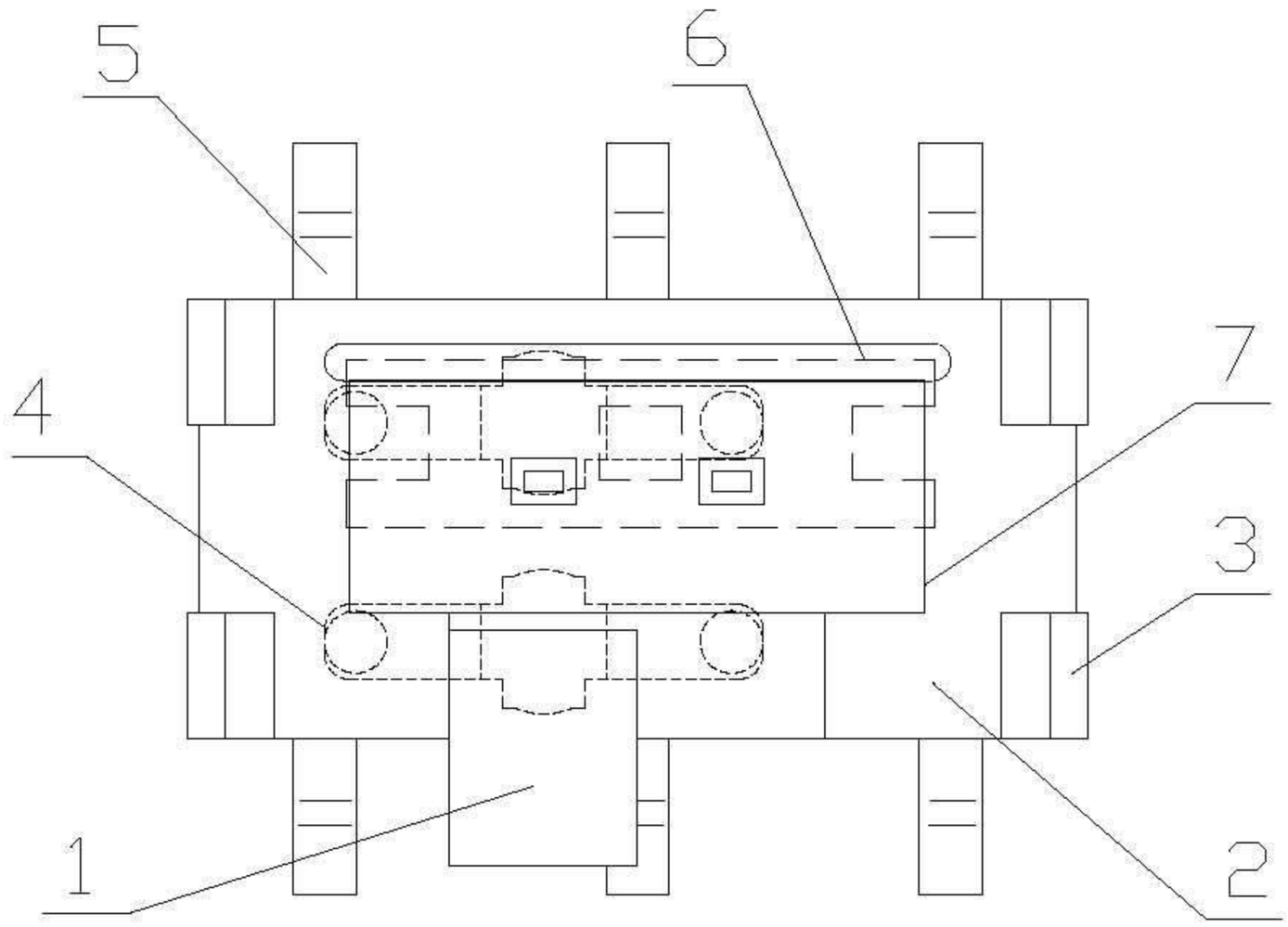
SERIES			SLIDE SWITCHES(SLS038)		Issuance date ：		20060801	
Document No.			DIC/PE038-010		Edition	C	Page	Page1 of 4
NO.	Part Name		Q’TY		Generic Class		SGS report No.	
1	Stem		1		Nylon		Attached SGS report	
2	Case		1		SUS301		Attached SGS report	
3	Base		1		Nylon		Attached SGS report	
4	Spring Plate		2		C5210		Attached SGS report	
5	Terminal		6		C2680		Attached SGS report	
6	Fixed Rod		1		SUS301		Attached SGS report	
7	Adhesive Tape		1		POLYIMIDE		Attached SGS report	

Structure chart:



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SERIES	SLIDE SWITCHES(MSL038)	Issuance date ：		20060801	
Document No.	DIC/PE038-010	Edition	C	Page	Page 2of 4

1、General ：

1.1 Switch rating： DC 4V, 0.3A

1.2Operating temperature range −25℃～80℃

1.3 Preservative temperature range −30℃～80℃

1.4 Storage humidity range ＜85%RH

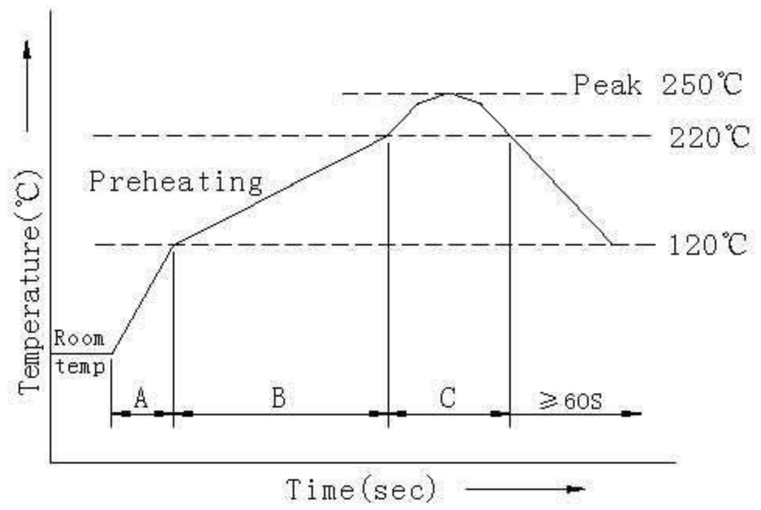
2.Performance

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.
3.3	Displacement of actuator(Knob)	A static load of 500gf Max shall be applied to the terminal for 15 Sec. In any direction.	

SERIES		SLIDE SWITCHES(MSL038)	Issuance date ：		20060801	
Document No.		DIC/PE038-010	Edition	C	Page	Page3 of 4

4. soldering characteristics

Items		Test conditions	Criteria
4.1	Hand soldering	Use a soldering iron of 30 watts, controlled at 380℃ 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	When applying reflow soldering, the peak temperature of the reflow Oven should be set to 250℃ max. Condition for soldering (Reflow & Non-washable Type) Temperature Profile:  	There shall be no defects in appearance or in the mechanical functions.

	Components size		Unit
A	Temp.rise gradient	40S	sec
B	Heating time	60-120S	sec
	Heating temperature	120-220℃	℃
C	Time over 220℃	60-90S	sec
	Peak temperature	250	℃
	Peak-temp.hold time	moment	sec
Soldering		1	times

5. Durability characteristic:

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: AC100V, 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 4V (2) Operating speed : 15 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 10,000cycles	

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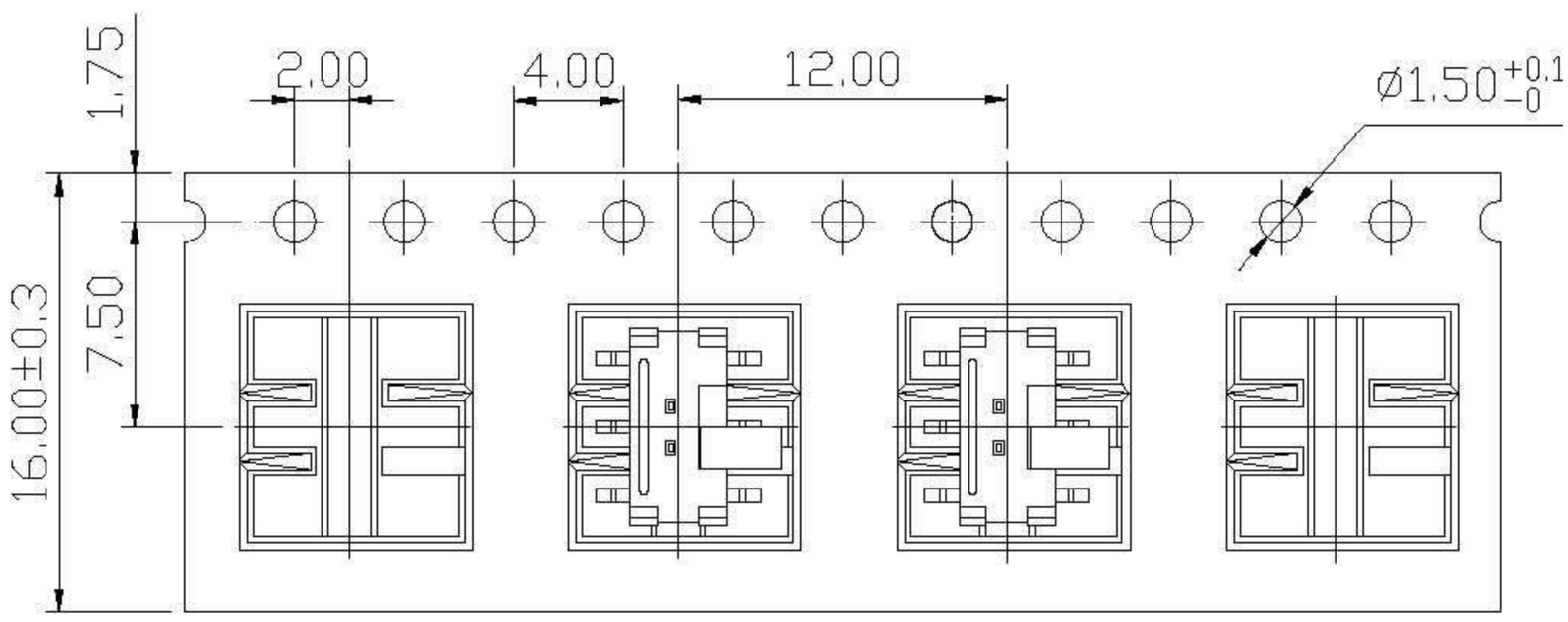
SWEETA PRODUCTS CORPORATION

SERIES	SLIDE SWITCHES(MSL038)	Issuance date :		20060801	
Document No.	DIC/PE038-010	Edition	C	Page	Page4 of 4

6. Quality records of delivered goods

Items		Test conditions	Criteria
6.1	Packing	(1) The products are packed in the taping packaging. (2) The number of the reels: (3) Fine(5)reels at maximum shall be packed in a package. (4) The number of the switches: (5) 1,500 switches shall be packed in a reel. (6) It should be noted that we Regard two cartons mentioned above as on package for export. (7) Tape form and dimensions:	There shall be no defects in appearance or in the mechanical functions in the process of shipping.



7. Special Requirements

7.1 Hazardous Substance Management：Follow environmental requirements：Hazardous Substance DIC/WI/G506。

8. Application Notes:

8.1 Avoid storing the products in a place at high temperature, high humidity and in corrosive gases.

8.2 Avoid excessive force when inserting into P.C.B so as to avoid deformation of terminals.

8.3 Influence for the characteristics by something dust or foreign articles. There is a possibility something dust or foreign articles put into click of brush plate and it should cause abnormal rotation feeling.