SWEETA PRODUCTS CORPORATION

RoHS

SWITCHTYPE	Micro Switches	MODEL NO.	SDM 1-02C-30-3

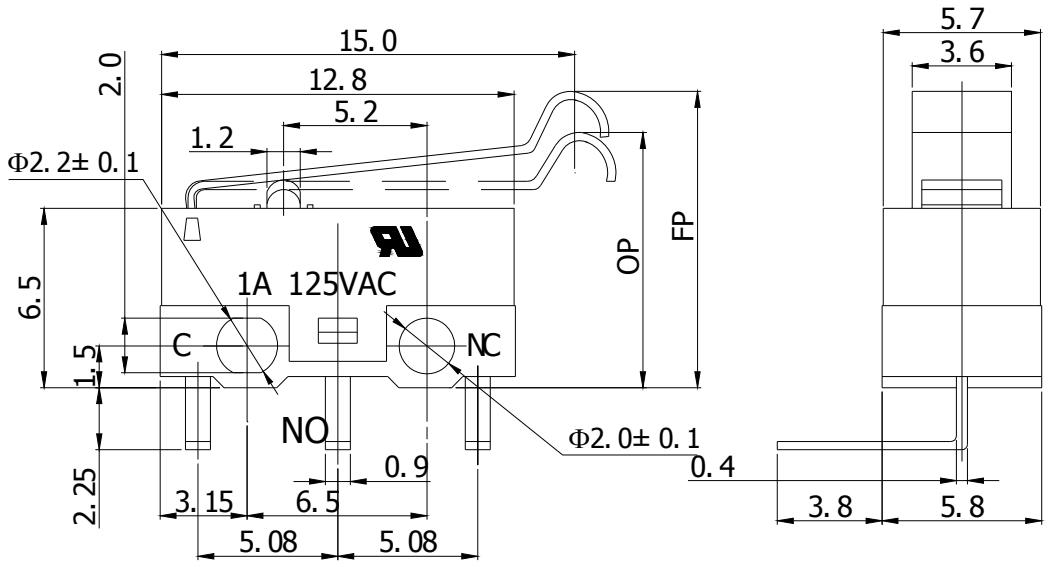
1. Functional spec.

1.1 Rated Voltage	125VAC 1A/DC5V 30mA	1.5 Free Position	12.8±0.8mm
		1.6 Operating Position	10.8±0.8mm
1.2 Contact Resistance	≤ 100m Ω	1.7 Position Travel	
1.3 Operating Force	20~50gf	1.8 Return Force	
1.4 Bounce Time		1.9	

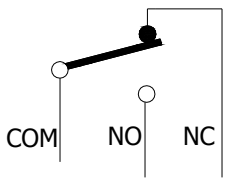
2.Reliable Rating

2.1 Mechanical Life	500,000 CYCLES	2.5 Soldering Temper	Hand Soldering
2.2 Electrical Life	10,000/500,000 CYCLES	2. 6 Operating Temper	-25° C - +65° C
2.3 Insulation Resistance	≥ 100MΩ DC500V	2.7 Ambient Humidity Used	<85% RH
2.4 Withstand Voltage	AC500V 1 minute	2.8	

3. Dimension Drawing



SCHEMATIC



Revision	Description	Date	Revisor
Drawing No.	C/0	Tolerance	±0.2
Drawing Model.	SPECIFICATION OF STANDARD TYPE	Unit	mm

Prepared		Reviewed		Approved		Effective date	

喜威達企業股份有限公司
SWEETA PRODUCTS CORPORATION

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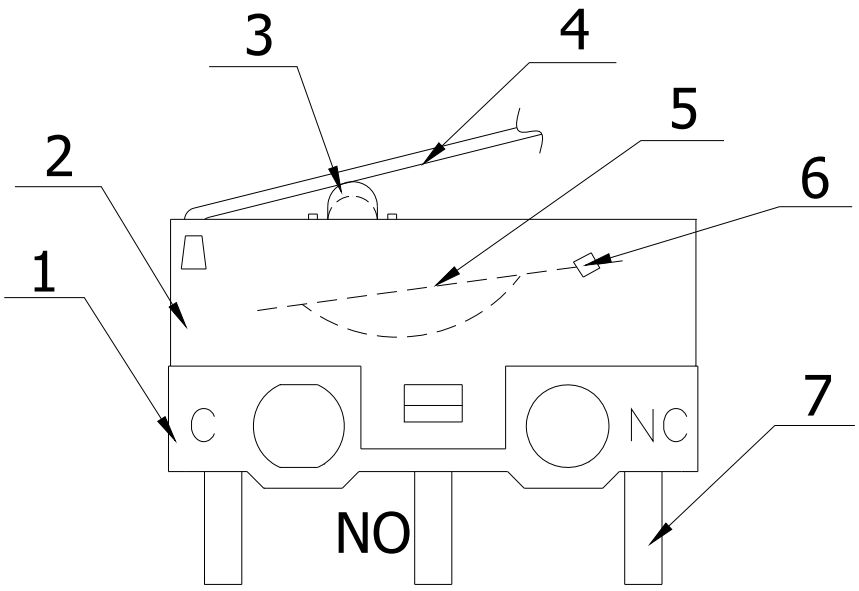
Material list

NO.	Part Name	Q'TY	Generic Class	Remark
1	Base	1	PBT	
2	Case	1	PBT	
3	Button	1	PBT	
4	Lever	1	SUS301	
5	Spring Plate	1	C1720	
6	Contact	1	Silver alloy	
7	Terminal	3	C2680	

Structure chart:



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1、General(一般特性) ：

1.1 Switch rating： 1A 125VAC/DC5V 30mA
1.2 Operating temperature range -15℃~65℃
1.3 Preservative temperature range -25℃~75℃
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 button, measurements shall be made between the terminals. Measurement shall be made with a stablization contact resistance meter for 2 mΩ precision under the condition which a voltage of DC5V 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 2.3 iterm 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 which a voltage of spec. voltage is applied between the terminals .	Refer to individual product drawing
2.1.3	Dielectric withstand in voltage	Spec. voltage (Refer to 2.4 iterm of individual product drawing) shall be applied across terminals and frame for one minute.	There shall be no breakdown

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Items		Test conditions				Criteria
3.Mechanical characteristics						
3.1	Free Position	Position of switch plunger or actuation when on external force is applied.				Refer,to individual product drawing
3.2	Operating Position	Position of switch plunge or actuator at which point contacts snap from normal to operated position. Note that the case of flexible of adjustable actuators.				Refer,to individual product drawing
3.3	Operating Force	Placing the switch such that the direction of switch operation is vertical, and then gradually increasing the load applied to the button, the maximum load for the button to come to operating position shall be measured. 。				Refer,to individual product drawing
3.4	Terminal Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3kgf Max shall be applied to the tip of the terminal in the direction of operation for one minute.				There shall be no sign of damage mechanically and electrically.
3.5	Button Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3kgf Max shall be applied to the center of the button in the direction of button operation for one minute.				
4. Soldering characteristics						
4.1	Hand soldering	Use a soldering iron of 30 watts , controlled at 350-360 ℃ approximately 3 seconds 1 time while applying solder.				(1)A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed. (2)There shall be no defects in appearance or in the mechanical functions.

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Items		Test conditions			Criteria	
5. Durability characteristic:						
5.1	Mechanical life	(1) Without loading (2) perating speed : 120 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 500,000 cycles			After test: (1)Contact resistance:1 ohm Max. (2)Insulation resistance: 10M ohm Min. (3)Bounce: 5m sec. Max. (4)Withstand voltage: AC500V, 1 minute (5)Operating force: 30% of initial value (6)There shall be no defects in appearance or in the mechanical functions.	
	Electrical life	(1) Operating speed : 10 cycles/minute (2) Push force : maximum value of operating force twice (3) which the load of 1A 125VAC Life: 10,000 cycles (4) which the load of 30mA DC5V Life:500,000 cycles				

6. Special Requirements

6.1 Hazardous Substance Management: Follow envirnmental tequirements: Hazardous Substance,DIC/WI/G506.

7. Marks explanation

7.1 There should be Model No. marks.
7.2 “NC， NO and C” discriminating signs of terminals should be carved on the upper housing and be clear.

7.3 There should be “1A 125VAC” rating and certification marks on upper housing.(Refer to individual product drawing

8. Packing explaintion

8.1 1000 pcs for one bag,4 bags for one small box,6 small boxes for one big box.

9.Quanlity records of delivered goods

9.1 Package boxes or package bags should be attached labels or identifiers of Model No., Quantity and Quality Pursuing

No. 9.2 There shall be quality records of inspection and test in package boxed.

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10. Application Notes:

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

10.2 All parts of the switch can not be dissolved before soldering.

10.3 Switches can not be blown with air gun or cleaned with a solvent after soldering.

11． Incoming inspection declaring:

You must comply with the following principles in the process of the incoming inspecting and using our products, if not, we won't be liable for any damages from it.

11.1 The requirement of the incoming inspection must meet the product's specification that have been affirmed and signed by you. If the following things appear in the process of the incoming inspection, the use is restricted, please feed back us in time ,we will take back of all.

11.1.1(The products that are attached or sticked by the unqualified labels;

11.1.2 (In the process of the incoming inspection, he following main function parameters must be checked and they must meet the specification. If the sum of the badness rate is more than 1% in the process, the use is restricted, please feedback us in time, we will take back of all.

1. Operating Force
2. Operating Position
3. Initial Contact Resistance
4. Soldering ability: 235±5℃/3S,the covering rate of tin is more than 90%;
5. Function and action: the operation that the direction of switch operation is vertical with the up-surface of button isn't disabled;

11.1.3 If the serious packaging disrepair of products appears in the process of the incoming inspection, please refuse accepting them and return them to us directly.

11.2 The requirement of operation

11.2.1 Operating requirement: the direction of switch operating is vertical with the up-surface of button;

11.2.2 For switches is a multi-function parameters part in our company ,which are assembled by many components (please see 1.2), the max permitting badness rate is 500ppm in producing process .If the damages are for our producing process badness aim, we won't be liable for it.

11.2.3 If badness rate of the main function parameters which is more than 500ppm or the sum of rate is more than 1500ppm appears in your producing process, please stop using them immediately and feed back us to do with it in time.

11.2.4 If your incoming inspection is careless and it arose that the badness rate of your producing process is more than 1%, we won't be liable for the damage.