SWEETA PRODUCTS CORPORATION

RoHS

SWITCH TYPE	Micro Switches	MODEL NO.	SSM10-02N-50

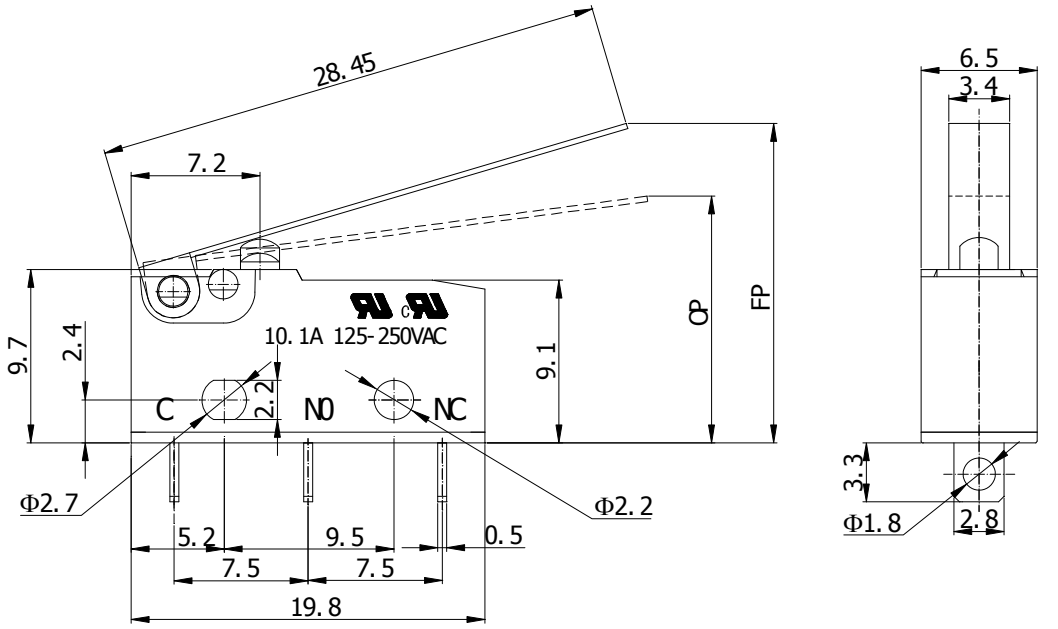
1. Functional spec.

1.1 Rated Voltage	125/250VAC	1.6 Free Position	18.0± 1.0mm
1.2 Rated Current	10.1A	1.7 Operating Position	13.8±1.0mm
1.3 Contact Resistance	≤ 50mΩ (Initial value)	1.8 Position Travel	
1.4 Operating Force	50± 20gf	1.9 Return Force	
1.5 Bounce Time		1.10	

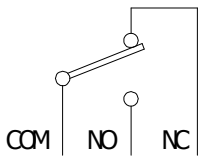
2.Reliable Rating

2.1 Mechanical Life	1,000,000 cycles	2.5 Soldering Technic	Hand Soldering
2.2 Electrical Life	6,000 cycles	2.6 Operating Temper	-25℃- +75℃
2.3 Insulation Resistance	≥ 100MΩ DC500V (Initial value)	2.7 Ambient Humidity Used	<85% RH
2.4 Withstand Voltage	AC1000V 1 minute (Initial value)	2.8	

3. Dimension Drawing



SCHEMATIC



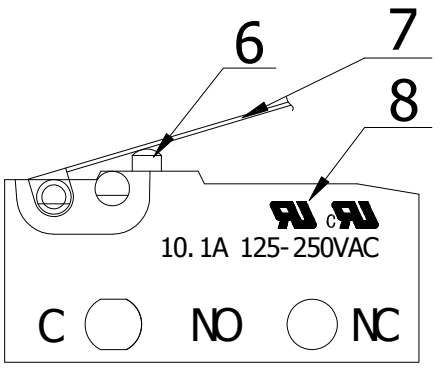
Revision	Description			Date	Revisor
Drawing No.		C/0		Tolerance	±0.2
Drawing Model.	SPECIFICATION OF STANDARD TYPE			Unit	mm
Prepared	Wen	Reviewed	Tony.Yang	Approved	Xei	Effective date	20120207

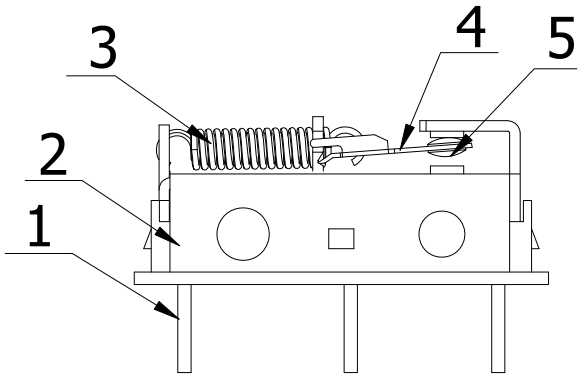
喜威達企業股份有限公司
SWEETA PRODUCTS CORPORATION

SERIES	MICRO SWITCHES(SSM10)	Issuance date:		20060801	
Document No.	DIC/PE004-069	Edition	C	Page	1/5

NO.	Part Name	Q'TY	Generic Class	SGS No. SGS
1	Terminal	3	C2680	See SGS report
2	Lower Housing	1	PBT	See SGS report
			PLASBLACK	See SGS report
3	Spring	1	SUS304	See SGS report
4	Change Plate	1	C5210	See SGS report
5	Contact	3	Silver alloy	See SGS report
6	Button	1	PBT	See SGS report
			PLASBLACK	See SGS report
7	Lever	1	SUS301	See SGS report
8	Upper Housing	1	PBT	See SGS report
			PLASBLACK	See SGS report

Structure chart:





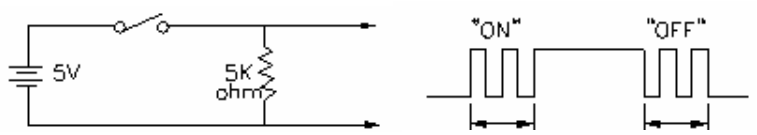
SERIES	MICRO SWITCHES(SSM10)	Issuance date：		20060801	
Document No.	DIC/PE004-069	Edition	C	Page	2/5

1、General ：

1.1 Switch rating： 10.1A 125/250VAC
1.2Operating temperature range -25℃~75℃
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 stabilization 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 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 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 item of individual product drawing) shall be applied across terminals and frame for one minute.	There shall be no breakdown
2.1.4	Bounce	Lightly striking the center of the button at a rate encountered in normal use (3 to 4 operating per sec.) bounce shall be tested at “ON” and “OFF”. 	5ms max

SERIES		MICRO SWITCHES(SSM10)	Issuance date：		20060801	
Document No.		DIC/PE004-069	Edition	C	Page	3/5
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.

SERIES	MICRO SWITCHES(SSM10)	Issuance date：		20060801	
Document No.	DIC/PE004-069	Edition	C	Page	4/5

Items		Test conditions	Criteria
5. Durability characteristic:			
5.1	Mechanical life	(1) Without loading (2) Operating speed : 120 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 1,000,000 cycles	After test: (1)Contact resistance: 1 ohm Max. (2)Insulation resistance: 10M ohm Min. (3)Bounce: 5m sec. Max. (4)Withstand voltage: AC1000V, 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) which the load of 10.1A 250VAC (2) Operating speed : 10 cycles/minute (3) Push force : maximum value of operating force twice (4) Life: 6,000 cycles	

6. Marks explanation

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

6.3 There should be “10.1A 125/250VAC” rating on upper housing.(Refer to individual product drawing)

7. Packing explanation

7.1 Having different transport and exist differ package :1.Mainland: 100pcs for one case，78 cases for one box；2.HK:100pcs for case,78 cases for one box; 3.Taiwan: 100pcs for one case，76 cases for one box；(①30gf Max of “OF” is packaged 15 cases for one box. ②Longer lever: Such as SSM-07、SSM-28 etc. type package)

8.Quanlity records of delivered goods

8.1 Package 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.

SERIES	MICRO SWITCHES(SSM10)	Issuance date：		20060801	
Document No.	DIC/PE004-069	Edition	C	Page	5/5

9. Application Notes:

9. 1 All parts of the switch can not be dissolved before soldering.

9. 2 Switches can not be blown with air gun or cleaned with a solvent after soldering.

10. Incoming inspection declaring:

10. 1You 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.

10. 2 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.

10. 2. 1 The products that are attached or sticked by the unqualified labels;

10. 2. 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.

①Operating Force: (Refer to individual product drawing)

②Pre-travel: (Refer to individual product drawing)

③Initial Contact Resistance: (Refer to individual product drawing)

④Soldering ability: 235±5℃/3S,the covering rate of tin is more than 90%;

⑤Function and action: the operation that the direction of switch operation is vertical with the up-surface of button isn't disabled;

10. 2. 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.

10. 3 Operating requirement: the direction of switch operating is vertical with the up-surface of button;

10. 4 For switches is a multi-function parameters part in our company ,which are assembled by many components(Refer to individual product drawing),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.

10. 5 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.

10. 6 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.