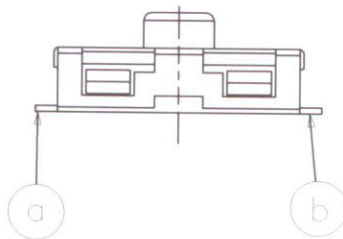
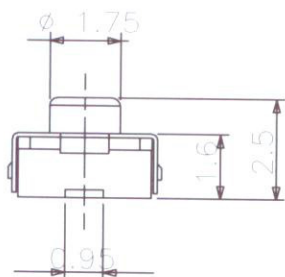
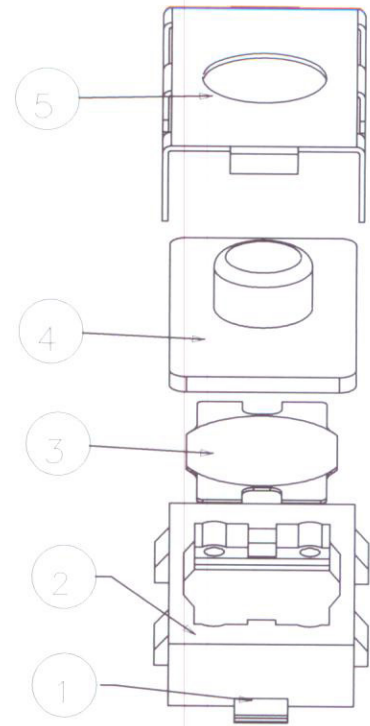
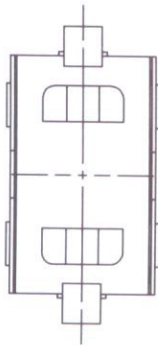


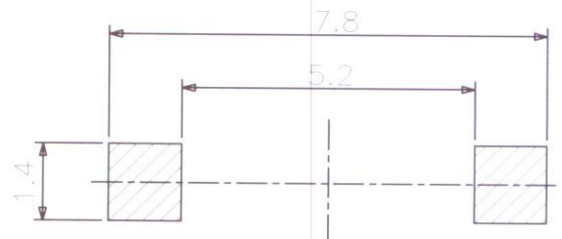
ISOMETRIC VIEW



Circuit Diagram



ASS'Y METHOD



Mounting Hole
(TOP VIEW)

NOTE

1. Omission Dimensions To CAD Data File Reference.

5	COVER		SUS304 0.1t	NT	1	
4	KNOB		SILICONE	BK	1	
3	CONTACT		SUS301 0.06t	NT	1	
2	CASE		PA 9T	BK	1	
1	TERMINAL		C2680R-EH 0.15t	Ag plating	1	
No.	DESCRIPTIONS	PART No.	MATERIAL	FINSH/COLOR	O'TY	REMARK
변경번호	변경내용	담당	승인			
REVISION NO.	DESCRIPTION OF REVISION	DESIGNED	APPROVED	Tolerance	TITLE	TACT SWITCH
△				0.0	+0.2	MODEL NAME INT1105F-NC
△				0.0	+0.1	DRAWING No.
△				0.00	+0.01	SCALE 5/1
△				0.000	+0.003	설계
△						THIRD ANGLE OF PROJECTION
				DESIGNED	06.03.28	승인
						APPROVED

PART LIST

모델명(MODEL NO.) : INT-1105F-NC

NO.	부품명 PART NAME	원재료명 MATERIAL NAME	원재료업체 MATERIAL MANUFACTURER	원산지 ORIGIN	도금 PLATING	색상 COLOR	비고 REMARKS
1	TERMINAL	C2680R-EH	POONGSAN METAL CO., LTD.	KOREA	Ag		
2	CASE	PA9T (G1300)	KURARAY CO., LTD.	JAPAN		Black	
3	CONTACT	Ag-SUS301-EH-AG	POSCO CO.,LTD	korea			
4	STEM	SILICONE RUBBER	KCC COPORATION	korea		Black	
6	COVER	SUS-301H	POONGSAN METAL CO., LTD.	KOREA			

INNOCENT ELECTRONICS CO.

1. GENERAL MATTERS

1. 1 Application : This specification covers the requirements for single key switches which have no keytop
(TACT SWITCHES: MECHANICAL CONTACT).

1. 2 Operating Temperature Range : -20°C to 70°C. (normal humidity, normal press.)

1. 3 Storage Temperature Range : -30 to 80°C (normal humidity, normal press.)

1. 4 Test Conditions : Tests and measurements shall be made in the following standard conditions unless otherwise specified

Normal temperature(temperature 5 to 35°C)

Normal humidity (relative humidity 45 to 85%)

Normal pressure (pressure 86 to 106 Kpa)

In case any question arises form the judgment made, tests shall be conducted in the following conditions : Temperature (20±2°C)

Relative humidity (65±5%)

Pressure (86 to 106 Kpa)

2. APPEARANCE, STYLE, AND DIMENSIONS

2. 1 Appearance : There shall be no defects that affect the serviceability of the product.

2. 2 Style and Dimensions : Shall conform to the assembly drawing.

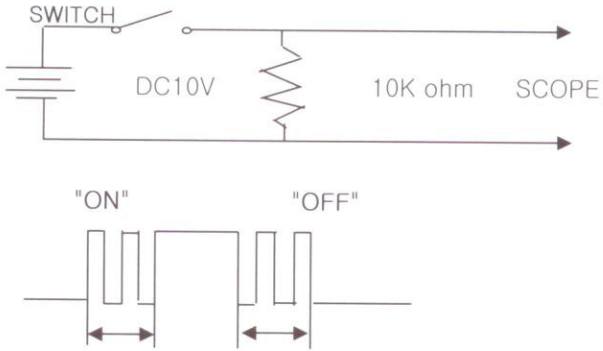
3. TYPE OF ACTUATION Tactile feedback

4. CONTACT ARRANGEMENT Push - OFF type S.P.S.T

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

5. MAXIMUM RATINGS DC 12V 50mA Max

6. ELECTRICAL PERFORMANCE

No	PROPERTY	TEST CONDITION	PERFORMANCE
6. 1	Contact Resistance		100mΩ Max
6. 2	Insulation Resistance	Measurements shall be made following application of DC 100V potential across terminals and across Terminals and frame for one minute.	100MΩ Min
6. 3	Dielectric withstanding Voltage	AC 250V (50Hz or 60Hz)shall be applied across terminals and frame for one minute.	There shall be no Breakdown
6. 4	Bounce	Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 operations per sec.) bounce shall be tested at "ON" and "OFF" 	10 msec. Max

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7. MECHANICAL PERFORMANCE

No	PROPERTY	TEST CONDITION	PERFORMANCE
7. 1	Actuating Force	Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the stem to come to a stop shall be measured	180 ±50gf
7. 2	Travel	Placing the switch such that the direction of switch operation is vertical and then applying a static load twice the actuating force to the center of the stem the travel distance for the stem to come to a stop shall be measured.	0.3 ±0.15mm
7. 3	Terminal Strength	Loaded with 2.94N (300gf) at any direction of the Terminal root for 15 second.	There shall be no loosened and function shall be normal.
7. 4	Stop Strength	Placing the switch such that the direction of switch operation is vertical. a static load of 30 N shall be applied in the direction of stem operation for a period of 60 seconds.	There shall be no sign of damage mechanically and electrically

8. ENVIRONMENTAL

No	PROPERTY	TEST CONDITIONS	PERFORMANCE
8. 1	Resistance to Low Temperatures	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : *temperature/time : -30 ±2℃/96hr *Water drops shall be removed.	Item 6. 1 Item 7. 1 Item 7. 2
8. 2	Heat Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : *temperature/time : 80 ±2℃/96hr	Item 6. 1 Item 7. 1 Item 7. 2
8. 3	Moisture Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : *temperature/time : 60 ±2℃/96hr *Relative humidity : 90 to 95% *Water drops shall be removed	Same as above

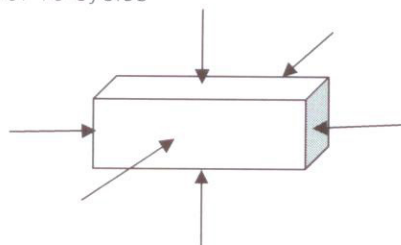
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DOCUMENT NO.	STS-031	/ /	/ /	/ /	

8. ENVIRONMENTAL

No	PROPERTY	TEST CONDITION	PERFORMANCE
8. 4	Temperature Cycling	Following five cycles of the temperature cycling test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : -30+/-2°C 60min +20+/-5°C 30min +80+/-2°C 60min +20+/-5°C 30min	Item 6. 1 Item 7. 1 Item 7. 2

9. ENDURANCE

No	PROPERTY	TEST CONDITIONS	PERFORMANCE
9. 1	Operating Life	Measurements shall be made following the test set forth below: *DC 5V,1mA/5mA resistive load *Rate of operation :120/min *Depression : <u>twice of actuating force</u> *Cycles of operation : 180gf – 10×10^4 cycles 250gf – 5×10^4 cycles	Contact resistance: 200mΩ max Insulation resistance: 100MΩ min Bounce: 20 msec max Actuating force: +/-30% same 7.1 Travel : same as 7. 2
9. 2	Vibration test	Measurements shall be made following the test set forth below: *Rate of oscillation : 10 to 55Hz *Amplitude,pk-to-pk : 1.5mm *cycle of sweep : 10-55-10Hz in one minute, approx. *Mode of sweep : Logarithmically sweep or uniform sweep *Direction of oscillation : Three mutually perpendicular directions, including the direction of stem travel *Duration of testing : 2 hours each, for a total of 6 hours	Item 6. 1 Item 7. 1 Item 7. 2
9. 3	Impact shock test	Measurements shall be made following the test set forth below: *Acceleration : 80G *Cycles of test : 3 cycles each in 6 directions, for a total of 18 cycles	Item 6. 1 Item 7. 1 Item 7. 2



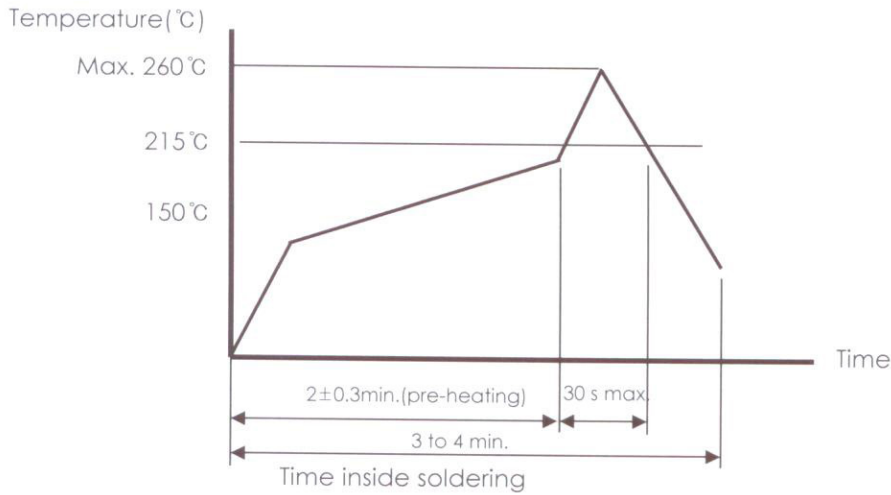
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10. CONDITIONS FOR SOLDERING

Reflow soldering conditions.

Preheat : Temperature on the copper foil surface should reach 180°C , 2.5±0.3 minute after
The p.w.b entered into the soldering equipment

Soldering heat : Temperature on the copper foil surface should reach the peak temperature
OF 260°C within 5 seconds after the P.W.B entered into soldering heat zone.



Temperature Profile

10. 1 OTHER PRECAUTIONS

Following the soldering process, do not try to clean the switch with a solvent of the like.
Safeguard the switch assembly against flux penetration form its topside.
Please have the products keep in close status and the storage time is 90 cays guaranty after
delivering the goods at most.

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