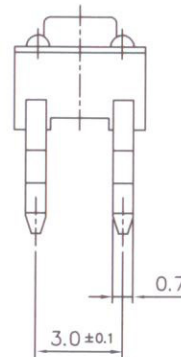
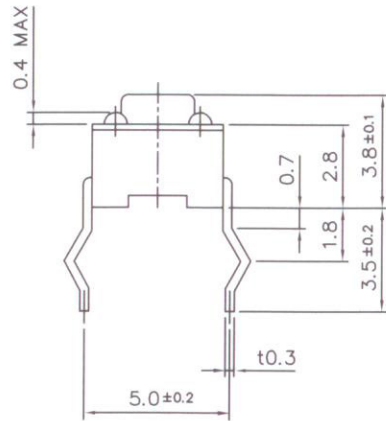
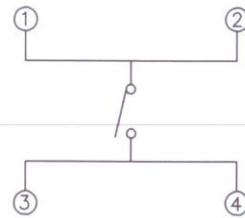


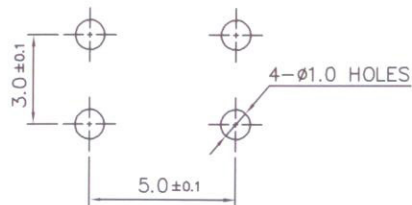
CIRCUIT DIAGRAM



NOTE

1. OPERATING FORCE : 160±30gf
2. TRAVEL : 0.25^{+0.2}_{0.1}m/m
3. CONTACT RESISTANCE : 100mΩ MAX
4. GENERAL TOLERANCE : ±0.3
5. MANUFACTURING SPECIFICATION WOULD BE ACCORDANCE WITH HT0104

PCB DIMENSION



PART NO	PART NAME	Q'TY	MATERIAL	STANDARD	DISPOSITION	REMARKS
△			TRIGON-OMETRY	UNIT	SCALE	TACT SWITCH
△			APPD	CHKD	DSGD	
△						
△						
△						
NO	CORRECTION				MODEL	INT-1109B38A

PART LIST

모델명(MODEL NO.) : INT-1109B

DESIGN	CHECK	APPR

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	PA66 (KN333G30)	KOLON ENGINEERING PLASTIC CO., LTD.	KOREA		BLACK	
3	CONTACT	SUS 301-EH-AG	POSCO CO., LTD.	JAPAN			3.5Ø, DIMPLE,SUS
2	STEM	PA66 (KN333G30)	KOLON ENGINEERING PLASTIC CO., LTD.	KOREA		BLACK	H : 3.8/7.0mm
5	COVER	POLYESTER FILM	SKC LTD.	KOREA			

1. RATINGS

12V DC, 50mA

2. MECHANICAL SPECIFICATIONS

- 2.1 Actuating Force As per individual specification
2.2 Return Force Greater than 50gf
2.3 Stop Strength Greater than 3kgf (for 3 seconds)
2.4 Travel $0.25^{+0.2}_{-0.1}$ mm
2.5 Arrangement of Action Tactile feed - back
2.6 Operating Temperature Rang -30°C ~ 80°C, 45 ~ 85%RH
2.7 Storage Temperature Range -35°C ~ 85°C However, 96 hours maximum for continuous storage over a range -20°C ~ 30°C and range 70°C ~ 80°C
2.8 Stem withdrawal Force Greater than 500gf (pull vertically to the opposite direction of stem operation)

3. ELECTRICAL SPECIFICATIONS

- 3.1 Contact Arrangement single pole, single throw
3.2 Contact Resistance Less than 100mΩ when tested by the voltameter method at 5V DC 10mA, or by an ohmmeter allowing a small current at 1000Hz (measurements to the made with a 100, 130, 160, 250,500±50gf load applied vertically at the center of switch)
3.3 Insulation Resistance Greater than 100MΩ (100V DC insulation resistance meter)
3.4 Dielectric Strength Capable of withstanding 250V AC, for 1 (one) min.
3.5 Bounce Less than 10msec (the key shall be struck lightly vertically at its center at a uniform cycling rate of 3 operations per second)

4. ENDURANCE

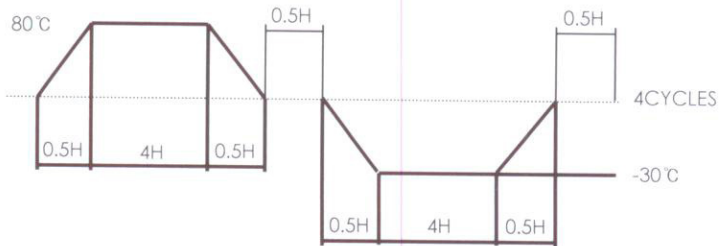
- 4.1 Operating Life Following 100,000cycles of operation cycling rate (2 operations per sec.)at a force of depression not exceeding 250gf with a resistive load supplying 12V DC, 50mA, the following requirements shall be satisfied :
- 4.1.1 Actuating Force Plus or minus 50% of the initial force
4.1.2 Contact Resistance Less than 100mΩ
4.1.3 Bounce Less than 20mΩ
4.2 Moisture Resistance Following exposure to a 60°C ±2°C, 90 ~ 95%RH, environment in a test chamber for 96 hours and then, out of the chamber, to room condition of normal temperature and humidity for 30 minutes, the requirements set forth below shall be met.
- 4.2.1 Insulation Resistance Greater than 10MΩ
4.2.2 Dielectric Strength Same as Item 3.4
4.2.3 Contact Resistance Same as Item 3.2
4.3 Heat Resistance Following exposure to an 85°C environment in a test chamber for 96 hours and then, out of the chamber, to room condition of normal temperature and humidity for 30 minutes, the requirements in Items 2 and 3 shall be satisfied.

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4.4 Resistance to Low Temperature

Following exposure to a -40°C environment in a test chamber, to room condition of normal temperature and humidity for 30 minutes, the requirements in Items 2 and 3 shall be met.

4.5 Thermal Cycling



Following 5 cycles of a thermal cycling test, on cycle of which is prescribed in the diagram above, the requirements in Items 2 and 3 shall be met.

4.6 Shock Resistance

Following application of an impact shock of 30G in accordance with the method 205, MIL - STD - 202, the requirements in Items 2 and 3 shall be met.

4.7 Vibration Resistance

Following the test conducted according to the method 201, MIL - STD -202, the switch under test shall conform to the requirements in Items 2 and 3 without any sign of defect both in appearance and actuation.

5. AUTOMATIC SOLDERING CONDITIONS (in case he automatic flow soldering is to be used)

- 5.1 Soldering Temperature 230°C max
- 5.2 Soldering Time Continuous dipping duration shall not exceed 5 second.
- 5.3 Permissible Soldering Times 2 time max
(twice soldering would be dipped after the temperature goes down to a normal temperature)
- 5.4 Preheat Temperature 100°C max
(circumferential temperature of the printed writing board)
- 5.5 Preheat Time 45 seconds max
- 5.6 Flux Streaming Flux streaming shall be controlled so that it shall not swell beyond the printed writing board where components are installed.
- 5.7 Other Precautions
 - (1) Flux shall not be applied to switch terminals and the part mounting surface of the P.W. board before soldering.
 - (2) Do not wash to switch after soldering.

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