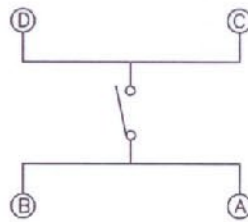
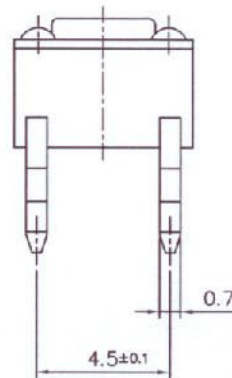
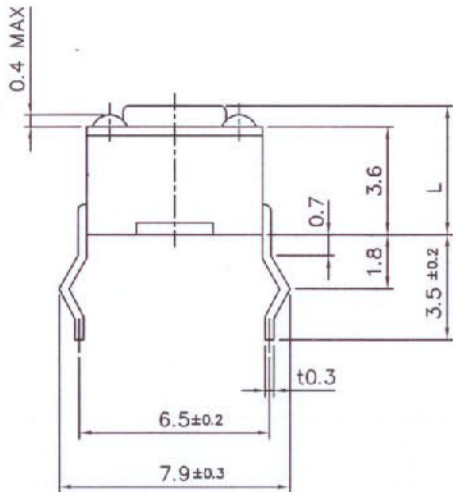
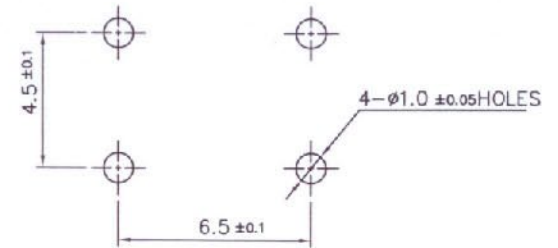


CIRCUIT DIAGRAM



PCB DIMENSION



NOTE

1. OPERATING FORCE : 130/160/250±50gf
2. TRAVEL :  $0.25^{+0.2}_{-0.1}$  m/m
3. CONTACT RESISTANCE : 100mΩ MAX
4. GENERAL TOLERANCE : ±0.3
6. L : 4.3/ 5/ 6/ 7.3/ 8/ 8.5/ 9.5/ 12mm  
12.5/ 13/ 13.5/ 16.2/ 17.0mm

PART NO	PART NAME	Q'TY	MATERIAL	STANDARD	DISPOSITION	REMARKS
△			TRIGON-OMETRY	UNIT	SCALE	TACT SWITCH
△				5	1	
△			APPD	CHKD	DSGD	MODEL TACTS60
△			<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	
△						
NO	CORRECTION					

## 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±30gf, 250±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

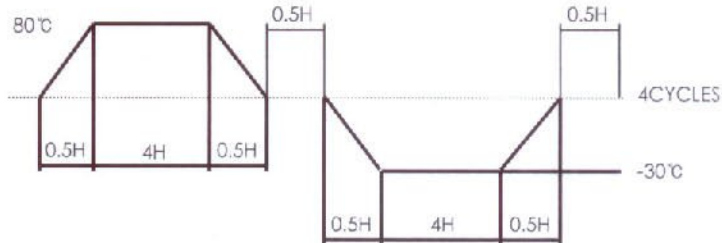
- 4.1 Operating Life Following 50,000cycles of operation cycling rate ( 2 operations per sec. )at a force of depression not exceeding 160gf with a resistive load supplying 12V DC, 50mA, the following requirements shall be satisfied :
- 4.1.1 Actuating Force Plus or minus 50% of the initial force  
4.1.2 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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DOCUMENT NO.	TS-0007				