

IT-1102 SMD TYPE

SPECIFICATIONS SWITCH IST **TYPE** TACT

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1. RATING

: 12V D.C. 50mA

2. MECHANICAL SPECIFICATIONS

2-1.Actuating force

: 160±30gf, 260±50gf

2-2.Return force

: Greater than 50gf

2-3.stop strength

: Greater than 3Kgf (for 3 seconds)

2-4.Travel

 $: 0.25 \pm 0.1 \text{ mm}$

2-5.Arrangement of action : Tactile feed-back

2-6. Operating temperature range

: -20℃-70℃, 45-85% RH

2-7.Storage temperature range

: -30°C-80°C However.96hours maximum for continuous storage

over a range -20℃-30℃ and range 70℃-80℃

2-8.Stem withdrawal force: Greater than 500gf(pull vertically to the opposite

direction of stem operation)

3. ELECTRICAL SPECIFICATION

3-1.Contact arrangement

: Single pole, Single throw

3-2.Contact resistance

: Less than 100m^{\textstyle \text{ when tested by the voltmeter}}

method at 5V D.C.10mA,or by an ohmmeter allowing

a small current at 1,000Hz

(measurements to be made with a 270gf load

applied vertically at the center of switch)

3-3.Insulation resistance

: Greater than 100M\(\Omega\) (100V DC insulation resistance meter)

3-4.Dielectric strength

: Capable of withstanding 250V A.C 1(one)min.

4.ENDURANCE

4-1. Operating life

100,000 cycles of operation cycling rate : Following

(2 operations per sec.)

at a force of depression not exceeding 270gf with a resistive load supplying 12V D.C. 50mA, the following

requirements shall be satisfied.

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4-1-1. Actuating force

: Plus or minus 30% of the initial force

4-1-2.contact resistance

: Less than 500m^{\(\Om\)}

4-2 Moisture resistance

: Following exposure to a $60\,^{\circ}\text{C} \pm 2\,^{\circ}\text{C}$, 90-95% R.H. environments in a test chamber for 96 hours and than, out of the chamber, to room condition of normal temperature and humidity for 30 minutes, the requirements set force below shall be met.

4-2-1.Insulation resistance

: Greater than 10MQ

4-2-2.Dielectric strength

: Same as Item 3.4

4-2-3.Contact resistance

: Sane as Item 3.2

4-3.Heat resistance

: Following exposure to an 80°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.

4-4. Resistance to low temperature

: Following exposure to a -30°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 met.

4-5. Thermal cycling

65℃

-10℃

2H 1H 2H 1H

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IST *** TYPE TACT SWITCH SPECIFICATIONS

: Following 5 cycles of a thermal cycling test, one cycle of which is prescribed in the diagram above, the requirements in Item 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 confirm to the requirements in Items 2 and 3 without any sign of defect both in appearance and actuation.

5.5AUTOMATIC SOLDERING CONDITIONS

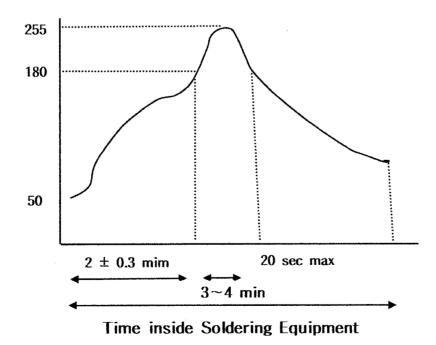
(in case the automatic flow soldering is to be used.)

5.5–1. Soldering temperature

: 255℃ max

5.5-2. Soldering time

: Continuous dipping duration shall not exceed 5 seconds



Temperature Profile

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