

DATA SHEET 数据表

BONSDA CODE : TDR-16H
代码

DESCRIPTION : ROTARY DIP SWITCH
描述

CUSTOMER APPROVAL

客户确认

PART NO. : _____
料号

SIGNATURES : _____
签章

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1. Style:

This specification describes "Rotary Switch" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating / Storage Temperature Range : -60°C ~ +125°C

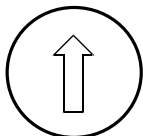
2. Current Range:

2.1 None-Switching : 200 mA, 42V

2.2 Switching : 150 mA, 42V

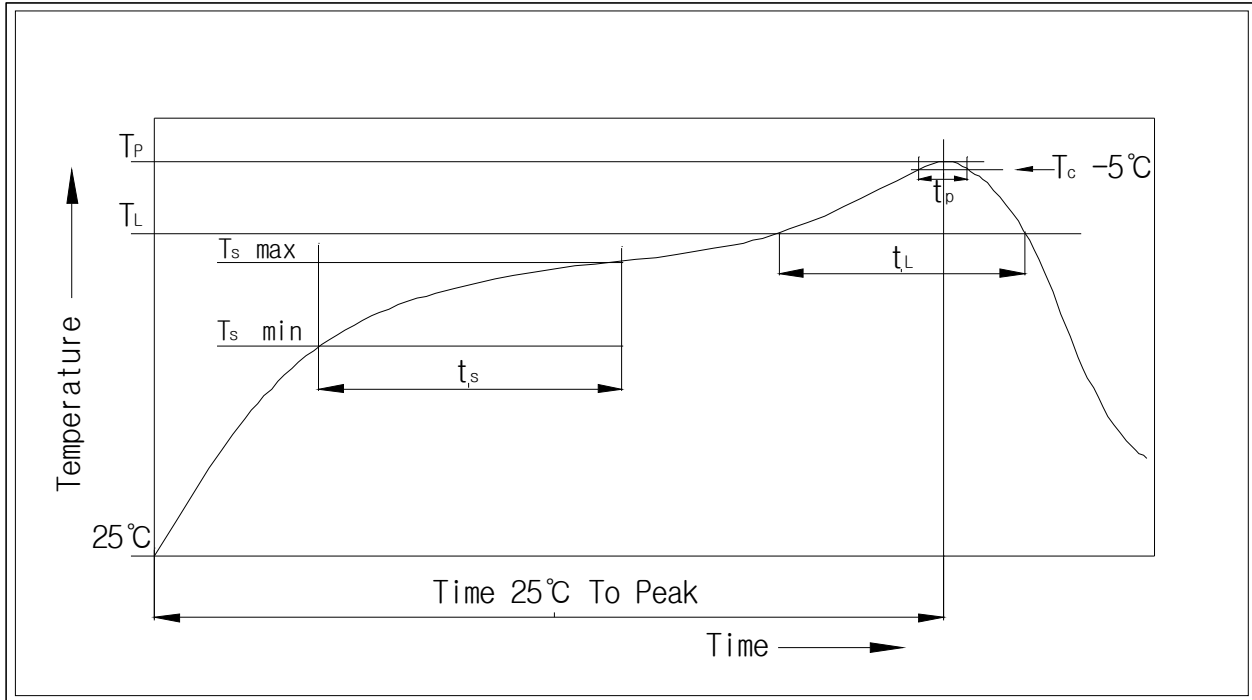
3. Type of Actuation : Rotating

4. Test Sequence :

| | ITEM | DESCRIPTION | TEST CONDITIONS | REQUIREMENTS |
|-----------------------------|------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| ELECTRIC PERFORMANCE | 1 | Visual Examination | By visual examination check without any out pressure & testing. | There shall be no defects that affect the serviceability of the product |
| | 2 | Contact Resistance | ① To be measured between the two terminals associated with each switch pole ② Measurements shall be made with a 1kHz shall current contact resistance meter | 80mΩ max.(initial) |
| | 3 | Insulation Resistance | 250V DC, 1minute ±5seconds | 100MΩ min |
| | 4 | Dielectric withstanding Volotage | 250V AC(50Hz or 60Hz)shall be applied between all the adjacent terminal and between the terminal and the frame For 1 minute | There shall be no breakdown or flashover |
| MACHIN | 5 | Operation Force | Applied in the direction of operation  | 700gf/cm. max |

| | | | | | |
|---------------------------------------------------------------------------------|--|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| P E R F O R M A N C E | | 6 | Operation Life | <p>Measurements shall be made following the test set forth below:</p> <p>1)150mA, 42V DC resistive load 2)Rate of operation: 15~20 cycles/ minute 3)Step of operation: 10,000 steps</p> | <p>1)As shown in item 3,4 2)Contact Resistance: 200mΩ max 3)Final-after test</p> |
| W E A T H E R P R O O F | | 7 | Resistance Low Temperature | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: -60℃ ±3℃ 2)Time: 96 hours</p> | <p>As shown in item 2~5</p> |
| 8 | | Resistance High Temperature | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: 125℃ ±2℃ 2)Time: 96 hours</p> | <p>1)As shown in item 3~5 2)Contact Resistance: 200mΩ max</p> | |
| 9 | | Resistance Humidity | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: 40℃ ±2℃ 2)Relative humidity: 90~95% 3)Time: 96 hours</p> | <p>1)As shown in item 4 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10MΩ min</p> | |

5. Reflow Soldering Conditions:



1) Classification Reflow Profiles

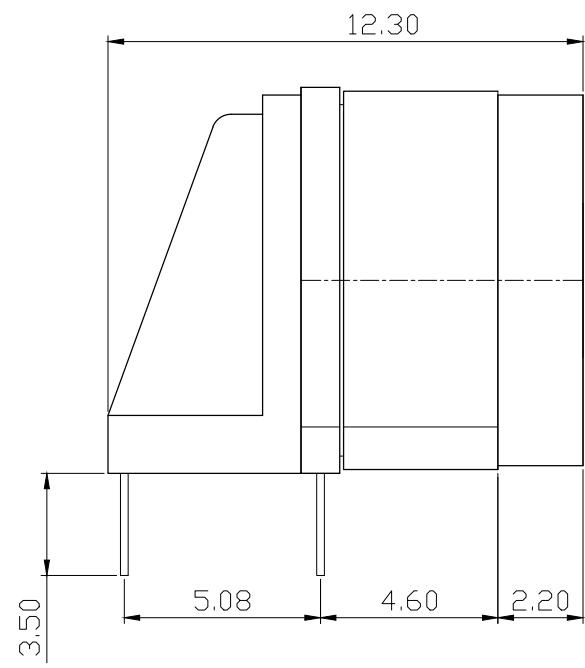
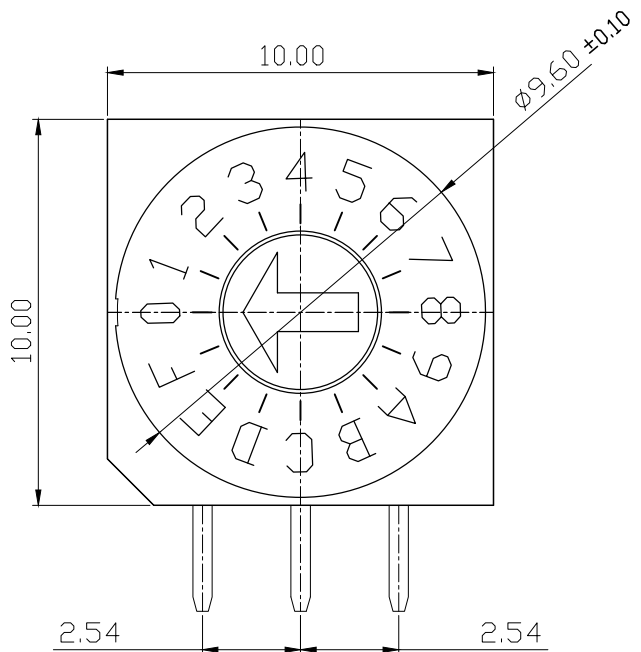
| Profile Feature | Pb-Free Assembly |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Average Ramp-UP Rate(Ts max to Tp) | 3°C/second max |
| Preheat <ul style="list-style-type: none"> - Temperature Min(Ts min) - Temperature Max(Ts max) - Time (ts min to ts max) | 150°C 200°C 60-180seconds |
| Time maintained above: <ul style="list-style-type: none"> - Temperature (TL) - Time (tL) | 217°C 60-150seconds |
| Peak/Classification Temperature(Tp) | 260°C +0°C/ -5°C |
| Time within 5°C of actual Peak Temperature(tp) | min 30 seconds |
| Ramp-Down Rate | 6°C/sec max |
| Time 25°C to Peak Temperature | 8 minutes max |

6. This item is "ROHS" Compliant

7. Part List

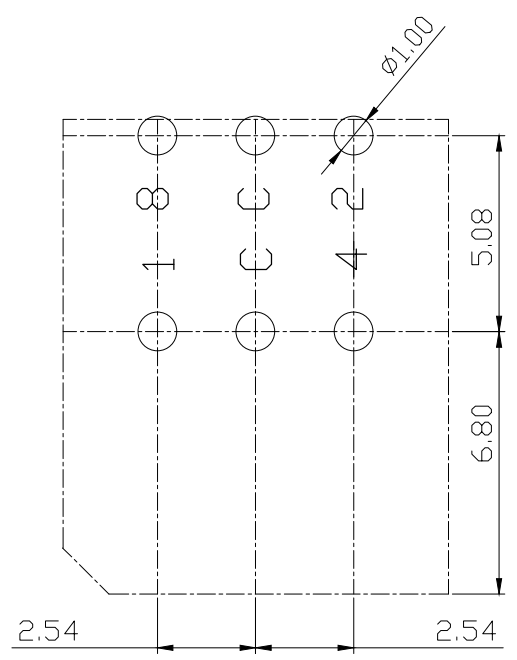
| NO | PART NAME | Q'TY | MATERIALS | TREATMENT | REMARK |
|----|--------------------|------|-----------------|--------------------------------------------------------|-------------------------------------------|
| 1 | COVER | 1 | LCP | | Print |
| 2 | BASE | 1 | | | |
| 3 | ACTUATOR | 1 | PA66, STS | | |
| 4 | CONTACT & TERMINAL | 1 | PHOSPHOR BRONZE | CONTACT AND TERMINAL PLATING: GOLD PLATING OVER NICKEL | Au 0.07 μ m Min Ni 0.1 μ m Min |
| 5 | PCB | 1 | EPOXY | PLATING: GOLD PLATING | Au 0.05 μ m Min |
| 6 | O-Ring | 1 | SILICONE | | |

| MARK | DATE | REMARKS |
|------|------|---------|
| △ | | |
| △ | | |




SPECIFICATION

1. Rating : 150mA, 42V DC (Switching)
200mA, 42V DC (None-Switching)
2. Contact Resistance : 80mΩ Max
3. Insulation Resistance : 100MΩ Min
4. Operating Force : 700gf Max
5. Life cycle : 10,000 steps



P.C.B DIMENSION

| | | Real Code | | | | |
|--------------------------------------------|---|-----------|---|---|---|---|
| | | C | 1 | 2 | 4 | 8 |
| 10 P o s i t i o n | 0 | ● | | | | |
| | 1 | ● | ● | | | |
| | 2 | ● | | ● | | |
| | 3 | ● | ● | ● | | |
| | 4 | ● | | | ● | |
| | 5 | ● | ● | | | ● |
| | 6 | ● | | ● | ● | |
| | 7 | ● | ● | ● | ● | |
| | 8 | ● | | | | ● |
| | 9 | ● | ● | | | ● |
| 16 P o s i t i o n | A | ● | | ● | | ● |
| | B | ● | ● | ● | | ● |
| | C | ● | | | ● | ● |
| | D | ● | ● | | ● | ● |
| | E | ● | | ● | ● | ● |
| | F | ● | ● | ● | ● | ● |

| | | | | | |
|---------|---------|---------|---------------------------------------------------------------------------------------------------------------------------|-------------------|-------|
| APPD | CHKD | D'SGD | TITLE. | ROTARY DIP SWITCH | |
| K.L LEE | J.P ROH | J.S SIN | MODEL NO. | TDR-16H | REV A |
| | | |  SHENZHEN ZIGENG TECHNOLOGY CO., LTD | | |