

## - 规格书 -

产品型号: MHD-06

产品名称: 旋转编码开关

**SM SWITCH CO.,LTD**

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# ROTARY DIP SWITCH SPECIFICATION

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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 : -40℃ ~ +85℃

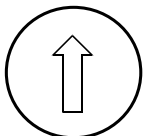
## 2. Current Range:

2.1 None-Switching : 200mA, 42V

2.2 Switching : 150mA, 42V

## 3. Type of Actuation : Rotating

## 4. Test Sequence :

| E<br>L<br>E<br>C<br>T<br>R<br>I<br>C<br><br>P<br>E<br>R<br>F<br>O<br>R<br>M<br>A<br>N<br>C<br>E | ITEM | DESCRIPTION                     | TEST CONDITIONS                                                                                                                                                | REQUIREMENTS                                                            |
|-------------------------------------------------------------------------------------------------|------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
|                                                                                                 | 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<br>② Measurements shall be made with a 1kHz shall current contact resistance meter | 80mΩ max                                                                |
|                                                                                                 | 3    | Insulation Resistance           | 250V DC, 1minute ±5seconds                                                                                                                                     | 100MΩ min                                                               |
|                                                                                                 | 4    | Dielectric withstanding Voltage | 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 flash over                               |
|                                                                                                 | 5    | Operation Force                 | Applied in the direction of operation<br>                                   | 700gf/cm. max                                                           |

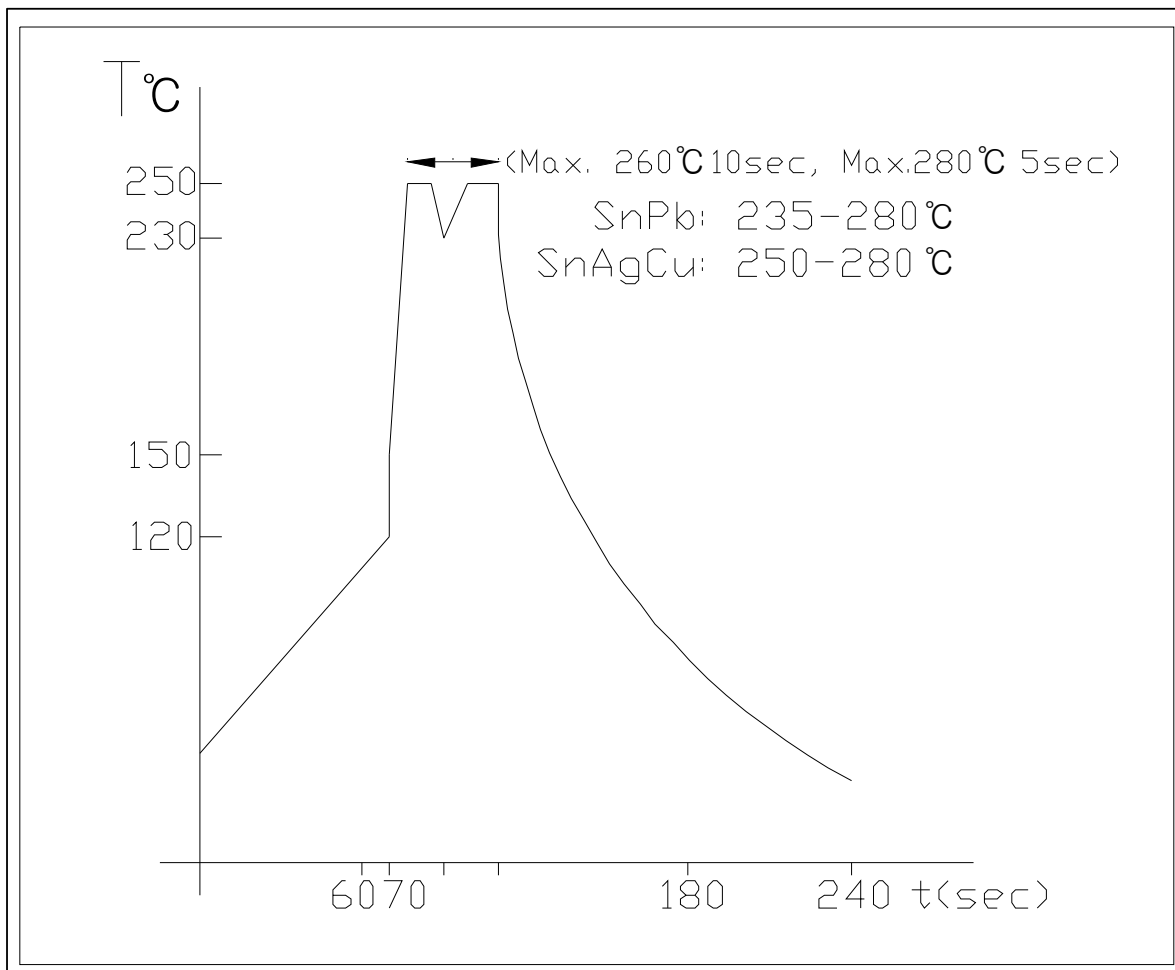


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|                                                                                       |   |                                   |                                                                                                                                                                                                                                  |                                                                                                    |
|---------------------------------------------------------------------------------------|---|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| M<br>A<br>C<br>H<br>I<br>N<br><br>P<br>E<br>R<br>F<br>O<br>R<br>M<br>A<br>N<br>C<br>E | 6 | Operation<br>Life                 | Measurements shall be made following the test set forth below:<br>1)150mA, 42V DC resistive load<br>2)Rate of operation: 15~20 cycles/ minute<br>3)Step of operation: 10,000 steps                                               | 1)As shown in item 3,4<br>2)Contact Resistance:<br>200mΩ max<br>3)Final-after test                 |
|                                                                                       | 7 | Resistance<br>Low<br>Temperature  | Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:<br>1)Temperature: -40℃ ±3℃<br>2)Time: 96 hours                               | As shown in item 2~5                                                                               |
|                                                                                       | 8 | Resistance<br>High<br>Temperature | Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:<br>1)Temperature: 85℃ ±2℃<br>2)Time: 96 hours                                | 1)As shown in item 3~5<br>2)Contact Resistance:<br>200mΩ max                                       |
|                                                                                       | 9 | Resistance<br>Humidity            | Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:<br>1)Temperature: 40℃ ±2℃<br>2)Relative humidity: 90~95%<br>3)Time: 96 hours | 1)As shown in item 4<br>2)Contact Resistance:<br>200mΩ max<br>3)Insulation Resistance:<br>10MΩ min |

## 5. Wave Soldering Conditions:



## 6. manual Soldering

: Max. 350 $^{\circ}\text{C}$  Max. 3sec

## 7. This item is "ROHS" Compliant

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## 8. Part List

| NO | PART NAME          | Q'TY | MATERIALS       | TREATMENT                                                          | REMARK                                  |
|----|--------------------|------|-----------------|--------------------------------------------------------------------|-----------------------------------------|
| 1  | COVER              | 1    | PA66            |                                                                    | Print:Black                             |
| 2  | BASE               | 1    |                 |                                                                    |                                         |
| 3  | ACTUATOR           | 1    | POM             |                                                                    |                                         |
| 4  | CONTACT & TERMINAL | 1    | PHOSPHOR BRONZE | CONTACT AND<br>TERMINAL<br>PLATING: GOLD<br>PLATING OVER<br>NICKEL | Au0.03 $\mu$ m Min<br>Ni0.1 $\mu$ m Min |
| 5  | PCB                | 1    | EPOXY           | PLATING: GOLD<br>PLATING                                           | Au0.05 $\mu$ m Min                      |
| 6  | O-Ring             | 1    | SILICONE        |                                                                    |                                         |