



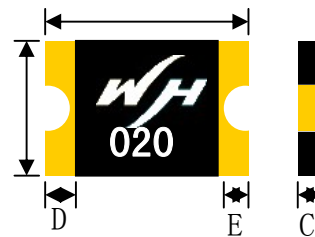
# Shenzhen Wondhope Electric Co.,Ltd.

|  |                    |  |
|--|--------------------|--|
| Add:2/F, Bldg 3, Minxing Industrial Zone, Minkang Rd, Minzhi Office,<br>Longhua New Area, Shenzhen | package:           | SMD 1812   |
|  | Model:             | WH 020   |
|  | V <sub>max</sub> : | 30V  |
|  | I <sub>max</sub> : | 40A  |
| Tel: 86-0755-29503668-8047   | SS:                | ROHS   |
| Fax :86-0755-29503998  | Web:               | <a href="http://www.wondhope.com">www.wondhope.com</a> |
| Email:sunny@wondhope.com      P.C.:518131  |                    |  |

## Specification Sheet

### Marking :

WH: Wondhope  
020: hold current



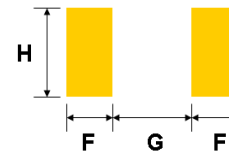
Appearance and size of production

### Solderability:

Meets EIA specification RS186-9Eand  
ANSI/J-STD-002 Category 3

### Terminal Pad Materials:

Sn-plated nickle-copper, lead-free device.



Recommended pad layout

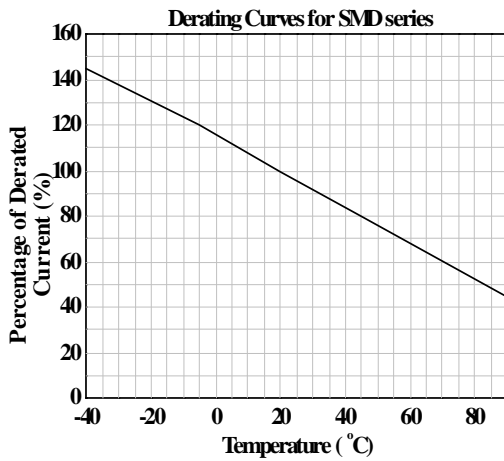
### Dimensions:

| UNIT | A    |      | B    |      | C    |      | D    | E    | F    | G    | H    |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      | MIN  | MAX  | MIN  | MAX  | MIN  | MAX  | MIN  | MIN  |      |      |      |
| mm   | 4.37 | 4.73 | 3.07 | 3.41 | 0.5  | 0.9  | 0.3  | 0.25 | 1.75 | 3.2  | 3.2  |
| inch | 0.17 | 0.19 | 0.12 | 0.13 | 0.02 | 0.04 | 0.01 | 0.01 | 0.07 | 0.12 | 0.12 |

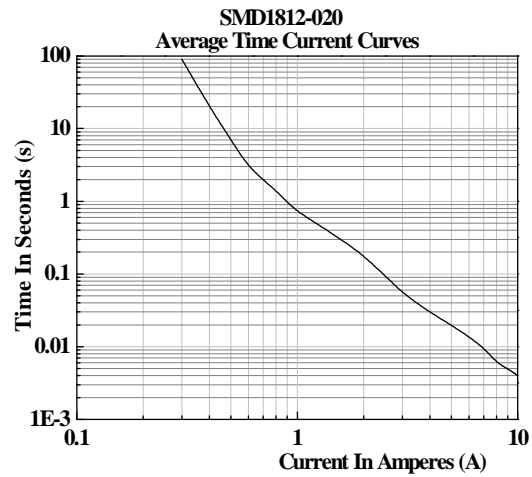
### Performance Specification:

| Model   | V <sub>max</sub><br>(V <sub>dc</sub> ) | I <sub>max</sub><br>(A) | I <sub>hold</sub><br>@25°C<br>(A) | I <sub>trip</sub><br>@25°C<br>(A) | P <sub>d</sub><br>Tpy.<br>(W) | Maximum Time To Trip |               | Resistance               |                          |
|---|--|-------------------------|-----------------------------------|-----------------------------------|-------------------------------|----------------------|---------------|--------------------------|--------------------------|
|   |  |                         |                                   |                                   |                               | Current<br>(A)       | Time<br>(Sec) | R <sub>imin</sub><br>(Ω) | R <sub>1max</sub><br>(Ω) |
| SMD020  | 30                                     | 40                      | 0.20                              | 0.40                              | 0.8                           | 8.0                  | 0.02          | 0.800                    | 5.00                     |
| V <sub>max</sub> : Maximum voltage , device can withstand without damage at rated current;          |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| I <sub>max</sub> : Maximum fault current, device can withstand without damage at rated voltage;     |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| I <sub>hold</sub> : Hold Current.,device will sustain for 30min without tripping in 25°C still air; |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| I <sub>trip</sub> : Minimum current at which the device will trip in 25°C still air;                |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| P <sub>d</sub> : Power dissipated from device when in the tripped state in 25°C still air;          |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| R <sub>i</sub> <sub>min</sub> :Minimum resistance of device in initial (un-soldered) state;         |  |                         |                                   |                                   |                               |                      |               |                          |                          |
| R <sub>1</sub> <sub>max</sub> : Maximum resistance of device at 25°C measured one hour post reflow. |  |                         |                                   |                                   |                               |                      |               |                          |                          |

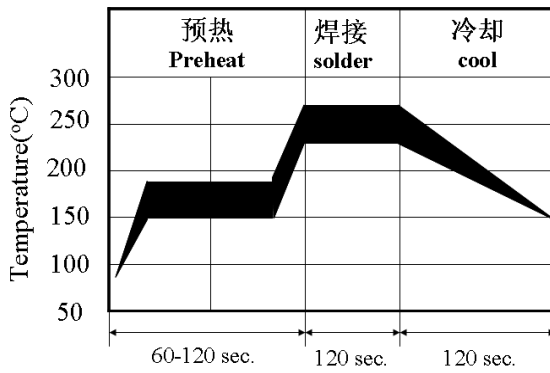
## Average Time Current Curve



## Average Time Current Curve at 25°C



## Solder reflow conditions



- 1、 Recommended reflow methods: IR, vapor phase oven, hot air oven.
- 2、 Devices are not designed to be wave soldered to the bottom side of the board.
- 3、 Recommended maximum paste thickness is 0.25 mm (0.010 inch).
- 4、 Devices can be cleaned using standard method and solvents.

**Note:** If reflow temperatures exceed the maximum recommended temperature chart (260oC), components may be damaged and fail to specifications.

## Storage and Handling

Storage conditions: 30°C max, 60% R.H. Devices may not meet specified performance if storage conditions are exceeded.

## Order Information

WH=Trademark, SMD1812=Packaging, 020=Model  
2000pcs/Reel

## WARNING:

- 1、 Use PPTC exceed by the maximum rating and improper use may result in device damage and possible electrical arcing and flame.
- 2、 PPTC are designed for protection against over current or temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- 3、 Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- 4、 Use PPTC with a large inductance in circuit will generate a circuit voltage above the rated voltage of the PPTC.
- 5、 Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.
- 6、 If any quality problems caused by improper use mentioned above, our company is not responsible.