

## GP-WSM Series PPTC Thermistors (PPTC Resettable Fuses)

Shenzhen Goodpoly Electron Co., Ltd.

Radial leaded devices

Very high voltage surge capabilities

Available in lead-free version

Agency Recognition: UL、TUV



### Electrical Characteristics

| Model     | V <sub>max</sub><br>(v) | I <sub>T</sub><br>(A) | T <sub>T</sub> (S) |      | I <sub>H</sub><br>(A) | I <sub>max</sub><br>(A) | R <sub>min</sub><br>( ) | R <sub>1max</sub><br>( ) |
|-----------|-------------------------|-----------------------|--------------------|------|-----------------------|-------------------------|-------------------------|--------------------------|
|           |                         |                       | I (A)              | (S)  |                       |                         |                         |                          |
| GP-WSM010 | 60.0                    | 0.20                  | 1.5                | 0.15 | 0.10                  | 10                      | 0.700                   | 6.000                    |
| GP-WSM014 | 60.0                    | 0.34                  | 1.5                | 0.15 | 0.14                  | 10                      | 0.700                   | 6.000                    |
| GP-WSM020 | 30.0                    | 0.40                  | 6.0                | 0.06 | 0.20                  | 10                      | 0.600                   | 5.000                    |
| GP-WSM035 | 6.0                     | 0.70                  | 8.0                | 0.20 | 0.35                  | 40                      |                         | 1.300                    |
| GP-WSM050 | 15.0                    | 1.00                  | 8.0                | 0.15 | 0.50                  | 40                      | 0.150                   | 1.000                    |
| GP-WSM075 | 13.2                    | 1.50                  | 8.0                | 0.20 | 0.75                  | 40                      | 0.100                   | 0.480                    |
| GP-WSM110 | 6.0                     | 2.20                  | 8.0                | 0.30 | 1.10                  | 40                      | 0.040                   | 0.260                    |
| GP-WSM125 | 6.0                     | 2.50                  | 8.0                | 0.40 | 1.25                  | 40                      | 0.070                   | 0.250                    |
| GP-WSM150 | 6.0                     | 3.00                  | 8.0                | 0.50 | 1.50                  | 40                      | 0.040                   | 0.110                    |
| GP-WSM160 | 6.0                     | 2.80                  | 8.0                | 1.00 | 1.60                  | 40                      | 0.030                   | 0.100                    |
| GP-WSM190 | 16.0                    | 3.80                  | 10.0               | 2.00 | 1.90                  | 100                     | 0.024                   | 0.080                    |
| GP-WSM200 | 6.0                     | 3.50                  | 8.0                | 2.00 | 2.00                  | 40                      | 0.020                   | 0.060                    |
| GP-WSM260 | 6.0                     | 5.20                  | 8.0                | 2.50 | 2.00                  | 40                      | 0.015                   | 0.047                    |

V<sub>max</sub> (V): Maximum device operating voltage.

I<sub>T</sub> (A): Tripping current: minimum current at which the device will trip at 25 °C under specified condition.

T<sub>T</sub> (S): Maximum time to trip at specified current. (Devices tested at 40A. The others tested at 5I<sub>H</sub>)

I<sub>H</sub> (A): Hold current: maximum current at which the device will not trip at 25 °C still air.

I<sub>max</sub> (A): Maximum fault current device can withstand without damage at rated voltage.

R<sub>o</sub> ( ): Minimum ~ maximum device resistance at 25 °C prior to tripping.

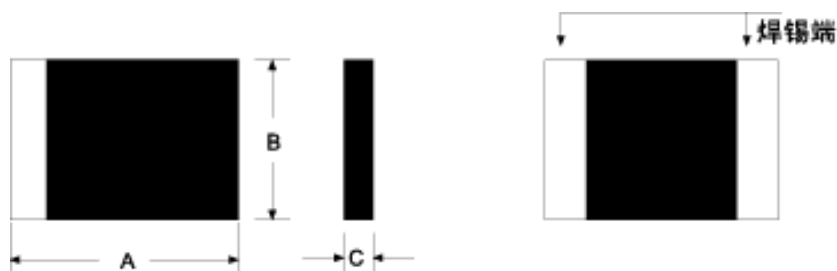
R<sub>1max</sub> ( ): Maximum device resistance measured in the nontripped state 1 hour post reflow.



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### Dimensions

| Model     | Amax(mm) | Bmax(mm) | Cmax(mm) |
|-----------|----------|----------|----------|
| GP-WSM010 | 4.73     | 3.41     | 0.81     |
| GP-WSM014 | 4.73     | 3.41     | 0.81     |
| GP-WSM020 | 4.73     | 3.41     | 0.81     |
| GP-WSM035 | 3.43     | 2.80     | 0.62     |
| GP-WSM050 | 4.73     | 3.41     | 0.62     |
| GP-WSM075 | 4.73     | 3.41     | 0.62     |
| GP-WSM110 | 4.73     | 3.41     | 0.62     |
| GP-WSM125 | 4.73     | 3.41     | 1.25     |
| GP-WSM150 | 4.73     | 3.41     | 1.25     |
| GP-WSM160 | 4.73     | 3.41     | 1.25     |
| GP-WSM190 | 11.51    | 5.33     | 0.55     |
| GP-WSM200 | 4.73     | 3.41     | 1.25     |
| GP-WSM260 | 4.73     | 3.41     | 2.25     |

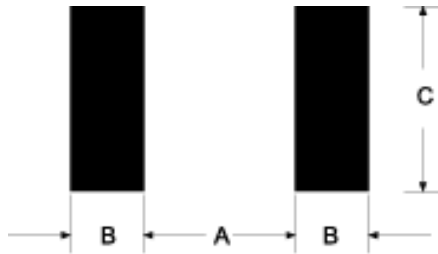


### Solder Reflow Recommendations

| Model     | nom  | B<br>nom | C<br>nom |
|-----------|------|----------|----------|
| GP-WSM010 | 3.45 | 1.78     | 3.15     |
| GP-WSM014 | 3.45 | 1.78     | 3.15     |
| GP-WSM020 | 3.45 | 1.78     | 3.15     |
| GP-WSM035 | 2.00 | 1.00     | 2.50     |
| GP-WSM050 | 3.45 | 1.78     | 3.15     |
| GP-WSM075 | 3.45 | 1.78     | 3.15     |
| GP-WSM110 | 3.45 | 1.78     | 3.15     |
| GP-WSM125 | 3.45 | 1.78     | 3.15     |
| GP-WSM150 | 3.45 | 1.78     | 3.15     |
| GP-WSM160 | 3.45 | 1.78     | 3.15     |
| GP-WSM190 | 9.57 | 1.45     | 4.75     |
| GP-WSM200 | 3.45 | 1.78     | 3.15     |
| GP-WSM260 | 3.45 | 1.78     | 3.15     |



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**Solder Reflow:** Recommended Reflow Method: IR, Vapor phase oven, hot air oven. Devices can be cleaned using standard industrial method and solvents.

**Remarks:** If reflow temperatures exceed the recommended profile, device may be damaged.

### Typical T-I Derating Form

| Model     | Ambient Temperature( ) |      |      |      |      |      |      |      |      |
|-----------|------------------------|------|------|------|------|------|------|------|------|
|           | -40                    | -20  | 0    | 25   | 40   | 50   | 60   | 70   | 85   |
| GP-WSM014 | 0.23                   | 0.19 | 0.17 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.06 |
| GP-WSM020 | 0.29                   | 0.26 | 0.23 | 0.20 | 0.17 | 0.15 | 0.14 | 0.12 | 0.10 |
| GP-WSM035 | 0.47                   | 0.45 | 0.40 | 0.35 | 0.30 | 0.28 | 0.24 | 0.21 | 0.18 |
| GP-WSM050 | 0.77                   | 0.68 | 0.59 | 0.50 | 0.44 | 0.40 | 0.37 | 0.33 | 0.29 |
| GP-WSM075 | 1.15                   | 1.01 | 0.88 | 0.75 | 0.65 | 0.60 | 0.55 | 0.49 | 0.43 |
| GP-WSM110 | 1.59                   | 1.43 | 1.26 | 1.10 | 0.95 | 0.87 | 0.80 | 0.71 | 0.60 |
| GP-WSM190 | 3.04                   | 2.70 | 2.20 | 1.90 | 1.44 | 1.23 | 1.00 | 0.78 | 0.49 |