

# TEWA TEMPERATURE SENSORS

HIGH PRECISION NTC THERMISTORS AND TEMPERATURE SENSORS

## Specification of Epoxy Coated NTC Thermistor

PART NUMBER: **TTS-1.8KC7-BG**

No. of pages: 2

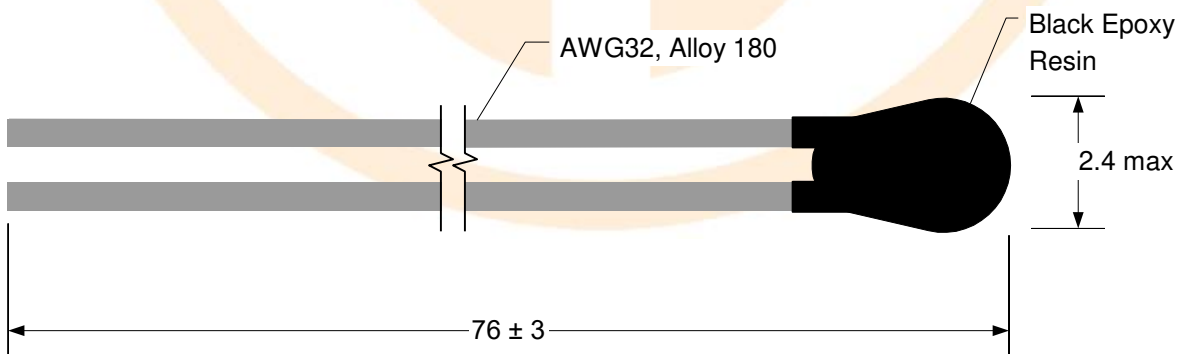
Date: **24.09.2015**

Revision: **00**

FEATURES:

| Sensing Element                           | Epoxy Coated NTC Thermistor |
|---|-----------------------------|
| No-load resistance at 25°C                | 1800 Ω                      |
| Tolerances from 0°C to 70°C               | ± 0.2°C                     |
| Beta(25/85) Constant                      | 3500K ± 1%                  |
| Operating temperature range               | -40°C ÷ 125°C               |
| Response Time in well stirred liquid bath | ~1 sec.                     |
| Response Time in still air                | ~10 sec.                    |
| Typical Dissipation Constant in still air | 0.75mW/°C                   |
| <b>RoHS Compatible</b>                    | <b>YES</b>                  |

DRAWING:



UNITS: [mm]

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R/T CHARACTERISTIC:

| Resistance <b>1 800</b> Ohms at 25°C<br>Tolerance $\pm 0.2^\circ\text{C}$ From 0°C to 70°C<br>B(25/85) <b>3500</b> $\pm 1\%$<br>Material no. <b>7</b> |                 |  |           |                |
|---|-----------------|--|-----------|----------------|
| Temp (°C)   | R/R(25C) (Ohms) |  | Temp (°C) | R Value (Ohms) |
| -40   | 21,6800         |  | -40       | 39024          |
| -35   | 16,3100         |  | -35       | 29358          |
| -30   | 12,3800         |  | -30       | 22284          |
| -25   | 9,4850          |  | -25       | 17073          |
| -20   | 7,3290          |  | -20       | 13192,2        |
| -15   | 5,7090          |  | -15       | 10276,2        |
| -10   | 4,4820          |  | -10       | 8067,6         |
| -5  | 3,5460          |  | -5        | 6382,8         |
| 0   | 2,8250          |  | 0         | 5085           |
| 5   | 2,2660          |  | 5         | 4078,8         |
| 10  | 1,8300          |  | 10        | 3294           |
| 15  | 1,4870          |  | 15        | 2676,6         |
| 20  | 1,2160          |  | 20        | 2188,8         |
| 25  | 1,0000          |  | 25        | <b>1800</b>    |
| 30  | 0,8270          |  | 30        | 1488,6         |
| 35  | 0,6876          |  | 35        | 1237,68        |
| 40  | 0,5747          |  | 40        | 1034,46        |
| 45  | 0,4827          |  | 45        | 868,86         |
| 50  | 0,4074          |  | 50        | 733,32         |
| 55  | 0,3454          |  | 55        | 621,72         |
| 60  | 0,2941          |  | 60        | 529,38         |
| 65  | 0,2515          |  | 65        | 452,7          |
| 70  | 0,2160          |  | 70        | 388,8          |
| 75  | 0,1862          |  | 75        | 335,16         |
| 80  | 0,1612          |  | 80        | 290,16         |
| 85  | 0,1400          |  | 85        | 252            |
| 90  | 0,1220          |  | 90        | 219,6          |
| 95  | 0,1067          |  | 95        | 192,06         |
| 100   | 0,0937          |  | 100       | 168,66         |
| 105   | 0,0825          |  | 105       | 148,5          |
| 110   | 0,0728          |  | 110       | 131,04         |
| 115   | 0,0645          |  | 115       | 116,1          |
| 120   | 0,0573          |  | 120       | 103,14         |
| 125   | 0,0510          |  | 125       | 91,8           |
| 130   | 0,0456          |  | 130       | 82,1           |
| 135   | 0,0408          |  | 135       | 73,4           |
| 140   | 0,0366          |  | 140       | 65,9           |
| 145   | 0,0330          |  | 145       | 59,4           |
| 150   | 0,0298          |  | 150       | 53,6           |