Glass-sealed NTC Thermistors

Type: **ERTG**

Glass-sealed NTC Thermistors, Type ERTG, are miniature axial leaded type thermistors in hermetically sealed glass tube packages, featuring high accuracy and high reliability due to their unique construction.

■ Features

- Wide Operating Range
 Nickel plated lead type: -40 to +300 °C
 Solder plated lead type: -40 to +125 °C
- Miniature axial lead type: $(\phi 1.6 \times 2.4 \text{ mm})$
- Quick response
- Highly stable in long term operation
- RoHS compliant

■ Handling Precautions See Page 167

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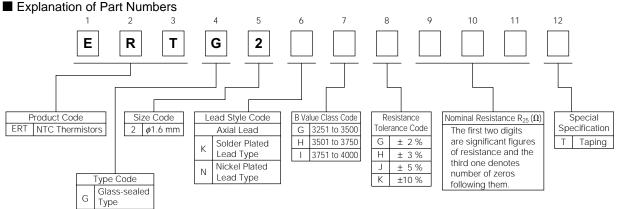


■ Recommended Applications Temperature detection for:

- Cooking appliances
- Air conditioning equipment
- Automobiles

■ Packaging Specifications

See Page 168



■ Ratings and Characteristics

| Part No. | Zero-Power Resistance (@25 °C) | B Value | | Thermal Time | Operating | Dissipation | Table |
|--------------|--------------------------------------|-------------|-------------|--------------|----------------------|-------------|-----------|
| | | 25 °C/50 °C | 25 °C/85 °C | Constant | Temperature Range | Factor | Curve No. |
| ERTG2KH□*502 | 5.0 kΩ | 3550 K | (3615 K) | | -40 to +125 °C | | 1 |
| ERTG2KH□*802 | 8.0 kΩ | 3550 K | (3615 K) | | | | 2 |
| ERTG2KG□*103 | 10.0 kΩ | 3380 K | (3435 K) | 6 s | Solder Plated | 1.5 mW/°C | 3 |
| ERTG2KI□*203 | 20.0 kΩ | 3950 K | (3980 K) | | Туре | | 4 |
| ERTG2KI□*333 | 33.0 kΩ | 3950 K | (3980 K) | | | | 5 |
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*Resistance Tolerance Code:
Tolerance of "B value": ±3 %

| G | Н | J | K |
|------|------|------|-------|
| ±2 % | ±3 % | ±5 % | ±10 % |

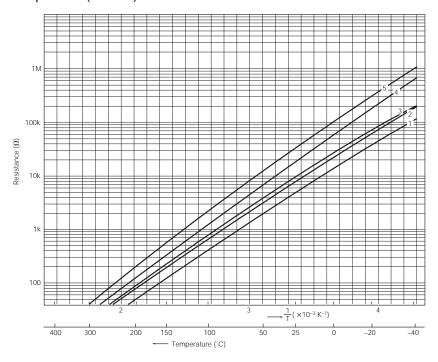
$$B(25~^{\circ}C/50~^{\circ}C) = \frac{ \ell n ~(R_{25}/R_{50})}{1/298.15 - 1/323.15}$$

B(25 °C/85 °C) =
$$\frac{l n (R_{25}/R_{85})}{1/298.15-1/358.15}$$

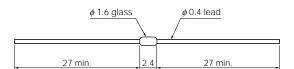
R₈₅=Resistance at 85.0 °C

 R_{25} =Resistance at 25.0 °C R_{50} =Resistance at 50.0 °C

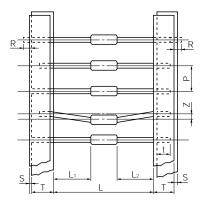
■ Resistance vs. Temperature (Table A)



■ Dimensions in mm (not to scale)



Taping Type



| L | 26.0+1.5 | |
|--------------------------------|----------|--|
| Р | 5.0±0.5 | |
| L ₁ -L ₂ | 2.2 max. | |
| Z | 1.0 max. | |
| R | 0.2 max. | |
| Т | 6.0±1.0 | |
| t | 3.2 min. | |
| S | 1.0 max. | |