

NTC Thermistors, Glass Encapsulated Miniature Bead



QUICK REFERENCE DATA

| PARAMETER | VALUE |
|--|----------------|
| Resistance value at 25 °C | 1 kΩ to 1 MΩ |
| Tolerance on R ₂₅ -value | ±5%; ±10% |
| B _{25/85} -value | 2075 to 4100 K |
| Tolerance on B _{25/85} -value | ±5% |
| Maximum dissipation at 55 °C | 60 mW |
| Response time; note 1 | ≈6 s |
| Operating temperature range: at zero dissipation | -55 to +200 °C |
| at maximum dissipation | 0 to 55 °C |
| Dielectric withstanding voltage (RMS) between terminals and glass envelope | min. 1500 V |
| Insulation resistance between terminals and glass envelope at 100 V (DC) | min. 100 MΩ |
| Mass | ≈0.1 g |

Note

- Response time in silicone oil MS200/50. This is the time needed for the sensor to reach 63.2% of the total temperature difference when subjected to a temperature change from 25 °C in air to 85 °C in oil.

FEATURES

- Small diameter
- Quick response to changes in temperature
- Very high long term stability
- High temperature operation
- Resistant to aggressive environments

APPLICATIONS

Temperature measurement.

Bead thermistor with negative temperature coefficient, in a glass envelope with two tinned durnet (CuNiFe) wires. The device is non-flammable.

MARKING

The thermistors are marked with four coloured dots on the glass envelope; see Component Outline drawing and Electrical Data and Ordering Information table.

MOUNTING

By soldering in any position.

PACKAGING

The thermistors are packed in cardboard boxes; the smallest packaging quantity is 100 units.

ELECTRICAL DATA AND ORDERING INFORMATION

| R ₂₅ (kΩ) | B _{25/85} -VALUE | TC (%/K) | CATALOG NUMBER 2322 633 2.... | | COLOUR CODE (see Component outline Drawing and note 1) | | |
|-------------------------|---------------------------|-------------|----------------------------------|----------------------|---|--------|--------|
| | | | R ₂₅ ±5% | R ₂₅ ±10% | I | II | III |
| 1 | 2075 K ±5% | -2.3 | 3102 | 2102 | brown | black | red |
| 2.2 | 2285 K ±5% | -2.6 | 3222 | 2222 | red | red | red |
| 4.7 | 2485 K ±5% | -2.8 | 3472 | 2472 | yellow | violet | red |
| 10 | 3750 K ±5% | -4.2 | 3103 | 2103 | brown | black | orange |
| 22 | 3560 K ±5% | -4.0 | 3223 | 2223 | red | red | orange |
| 47 | 3750 K ±5% | -4.2 | 3473 | 2473 | yellow | violet | orange |
| 100 | 3900 K ±5% | -4.4 | 3104 | 2104 | brown | black | yellow |
| 220 | 3860 K ±5% | -4.3 | 3224 | 2224 | red | red | yellow |
| 470 | 3950 K ±5% | -4.5 | 3474 | 2474 | yellow | violet | yellow |
| 1000 | 4100 K ±5% | -4.6 | 3105 | 2105 | brown | black | green |

Note

- Dependent upon R₂₅-tolerance, the dot IV is coloured as follows:
 - for R₂₅ ±5%, dot IV is coloured gold;
 - for R₂₅ ±10%, dot IV is coloured silver.
- R₂₅-values, temperature coefficients, catalog numbers and coding.
- The thermistors have a 12-digit catalog number starting with 2322 633 2. The subsequent 4 digits indicate the resistance value and tolerance.

2322 633 2....

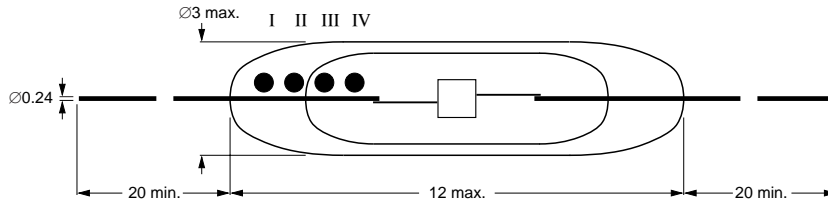
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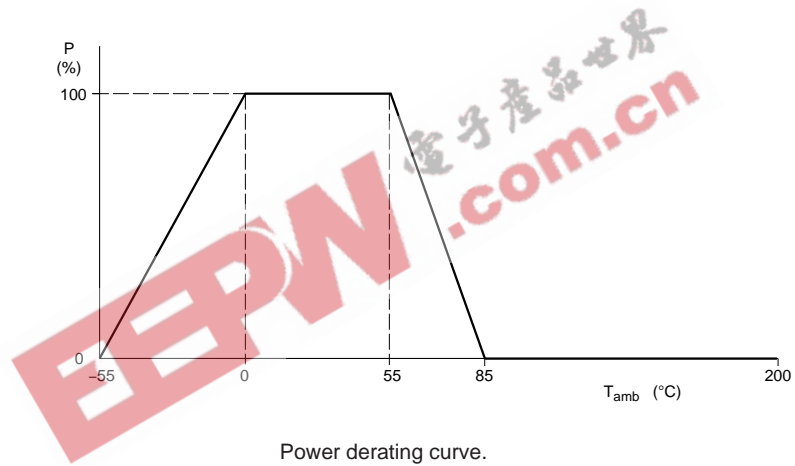


DIMENSIONS in millimeters

Component outline.



DERATING



Power derating curve.