

## NTC Thermistors, Glass Encapsulated Miniature Bead



QUICK REFERENCE DATA	
PARAMETER	VALUE
Resistance value at 25 °C	1 kΩ to 1 MΩ
Tolerance on R <sub>25</sub> -value	±5%; ±10%
B <sub>25/85</sub> -value	2075 to 4100 K
Tolerance on B <sub>25/85</sub> -value	±5%
Maximum dissipation at 55 °C	60 mW
Response time; note 1	≈6 s
Operating temperature range: at zero dissipation at maximum dissipation	-55 to +200 °C 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.

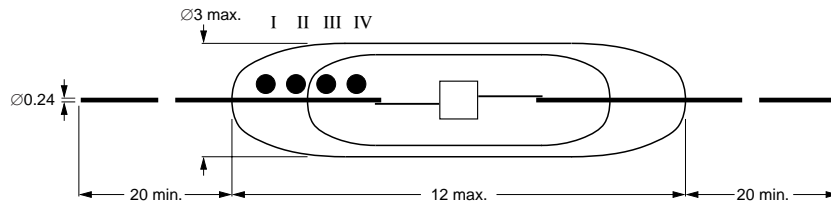
ELECTRICAL DATA AND ORDERING INFORMATION							
R <sub>25</sub> (kΩ)	B <sub>25/85</sub> -VALUE	TC (%/K)	CATALOG NUMBER 2322 633 2....		COLOUR CODE (see Component outline Drawing and note 1)		
			R <sub>25</sub> ±5%	R <sub>25</sub> ±10%	I	II	III
1	2075 K ±5%	-2.3	3102	2102	brown	black	red
2.2	2285 K ±5%	-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

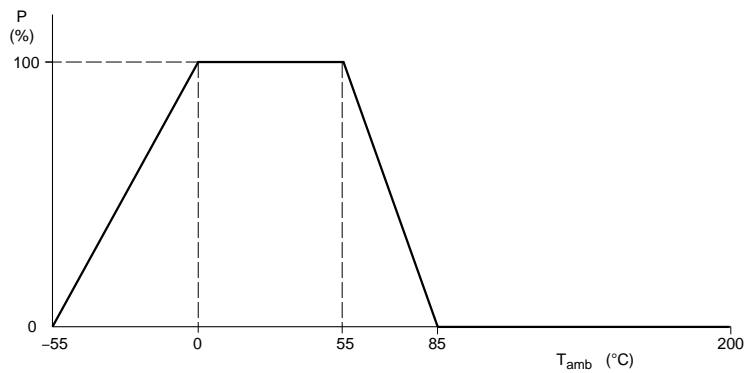
- Dependent upon R<sub>25</sub>-tolerance, the dot IV is coloured as follows:
  - for R<sub>25</sub> ±5%, dot IV is coloured gold;
  - for R<sub>25</sub> ±10%, dot IV is coloured silver.
- R<sub>25</sub>-values, temperature coefficients, catalog numbers and coding.
- The thermistors have a 12-digit catalog number starting with 2322 633 2. The subsequent 4 digits indicate the resistance value and tolerance.

**DIMENSIONS** in millimeters

Component outline.



**DERATING**



Power derating curve.