NTC Thermistors, Glass Encapsulated Miniature Bead

FEATURES

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

APPLICATIONS

Temperature measurement and control up to 300 °C.

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

MOUNTING

By soldering in any position.

PACKAGING

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

QUICK REFERENCE DATA

PARAMETER	VALUE
Resistance value at 25 °C	1 kΩ to 1 MΩ
Tolerance on R25-value	±5%; ±10%
B25/85-value	2075 to 4100 K
Tolerance on B25/85-value	±5%
Maximum dissipation at 55 °C	100 mW
Dissipation factor	≈0.8 mW/K
Response time; note 1	≈1 s
Thermal time constant	≈7.5 s
Operating temperature range: at zero dissipation at maximum dissipation	 –55 to +200 °C or –55 to +300 °C 0 to 55 °C
Dielectric withstanding voltage (RMS) between terminals and glass envelope	min. 100 V
Insulation resistance between terminals and glass envelope at 10 V (DC)	min. 10 MΩ
Mass	≈33 mg

Note

1. 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.

ELECTRICAL DATA AND ORDERING INFORMATION

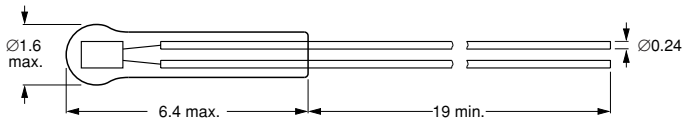
R_{25} (kΩ)	$B_{25/85}$-VALUE	T_{max} (°C)	TC (%/K)	CATALOG NUMBER 2322 626 2....	
				R_{25} ±5%	R_{25} ±10%
1	2075 K ±5%	200	–2.3	3102	2102
2.2	2285 K ±5%	200	–2.6	3222	2222
4.7	2485 K ±5%	200	–2.8	3472	2472
10	3750 K ±5%	200	–4.2	3103	2103
22	3560 K ±5%	200	–4.0	3223	2223
47	3750 K ±5%	200	–4.2	3473	2473
100	3900 K ±5%	300	–4.4	3104	2104
220	3860 K ±5%	300	–4.3	3224	2224
470	3950 K ±5%	300	–4.5	3474	2474
1000	4100 K ±5%	300	–4.6	3105	2105

Note

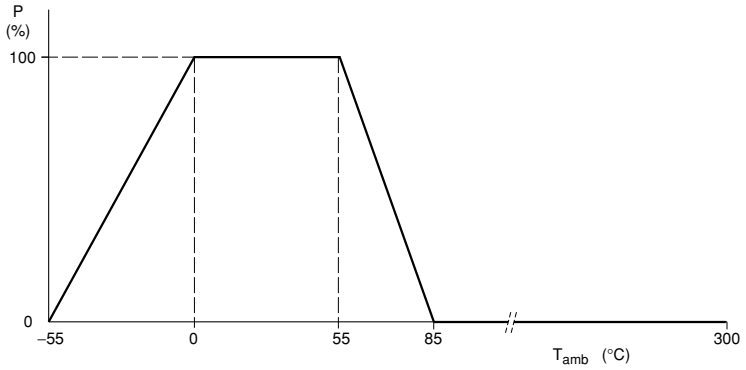
1. R_{25}-values, temperature coefficients and catalog numbers.
2. The thermistors have a 12-digit catalog number starting with 2322 626 2. The subsequent 4 digits indicate the resistance value and tolerance.

DIMENSIONS in millimeters

Component outline.



DERATING



Power derating curve.