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Vishay BCcomponents

NTC Thermistors, Special Long Lead Sensors



LINKS TO ADDITIONAL RESOURCES

| 30 | | |
|-----------|--------------|-----------|
| 3D Models | Design Tools | Related |
| | | Documents |

| QUICK REFERENCE DATA | | | | | |
|--|-------------|-----------------|--|--|--|
| PARAMETER | VALUE | UNIT | | | |
| Resistance value at 25 °C | 10K | Ω | | | |
| Tolerance on R_{25} -value | ± 3 | % | | | |
| B _{25/85} -value | 3984 | К | | | |
| Tolerance on B _{25/85} -value | ± 0.5 | % | | | |
| Dissipation factor: | 6.0 | mW/K | | | |
| Response time ⁽¹⁾ : | ≈ 10 | S | | | |
| Operating temperature range: | | | | | |
| At zero dissipation (continuously) | -40 to +105 | °C | | | |
| Min. dielectric withstanding voltage between terminals and sensor body | 1500 | V _{AC} | | | |
| Weight | 25 | g | | | |

Note

(1) Response time in silicone oil MS 200/50. 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

- Accurate over wide temperature range
- High stability
- Excellent price / performance ratio
- High adhesive strength between PVC wire and the encapsulating lacquer
- Material categorization:
- for definitions of compliance please see **RoHS** <u>www.vishay.com/doc?99912</u> compliant

APPLICATIONS

Temperature measurement, sensing and control in remote locations and for various environmental conditions.

DESCRIPTION

These sensors exist of a small NTC chip reflow soldered between two AWG24 UL-2651 105 °C rating 300 V wires. They are lacquered and insulated and potted into a brass pipe. The RoHS-compliant version is using lead (Pb)-free brass material.

MARKING

UL mark on wire, no mark on body.

PACKAGING

The thermistors are packed in cardboard boxes; each box containing 500 pieces.

DESIGN-IN SUPPORT

- For complete curve computation, please visit: <u>www.vishay.com/en/thermistors/ntc-rt-calculator/</u>
- Other wire length and wire type are available on request. The products can be provided with a connector on request with a minimum buy constraint

MOUNTING

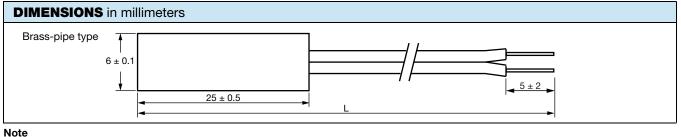
By soldering or clamping the wire ends, in any position. Body can be inserted or taped attached. Not intended for fluid immersed applications.

| ELECTRICAL DATA AND ORDERING INFORMATION | | | | | | | |
|--|-------|---------------------------|-----------------------------------|---------------------|---|------------------|--|
| R25 R25-T0 (Ω) (± %) | | B _{25/85} (K) | B _{25/85} -TOL. (± %) | LEAD LENGTH (mm) | SAP MATERIAL AND ORDERING NUMBER | | |
| | (± %) | | | | RoHS COMPLIANT WITH EXEMPTION ⁽¹⁾ | RoHS-COMPLIANT | |
| 10 000 | 3 | 3984 | 0.5 | 1500 ± 20 | NTCAPIPE3C90105 | NTCAPIPE3C90105A | |

Notes

Preferred versions for new designs

⁽¹⁾ RoHS exemption 7(c)-I: electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezo-electronic devices, or in a glass or ceramic matrix compound



• L: refer to table

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Pb-free Available



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