NTC-103J-3435: NTC THERMISTOR 10K 5% 2.5mW

TEMPERATURE SENSOR

1) Scope

This specification defines ratings, dimension, insulation, climatic test and mechanical characteristics for JT type thermistor.

2) Part No.: NTC-103J-3435

3) Rating

3-1) Rated zero-power resistance : R_{25} : 10KΩ ± 5% (at 25℃)

3-2) B value : $B_{25/85}$: 3,435K ± 1%

* The B value is calculated using the zero-power resistance values measured at 25℃ and 85℃.

3-3) Dissipation factor: Approx. 0.7 mW/℃ (in air)

3-4) Thermal time constant: Approx. 5.0 S (in air)

3-5) Maximum power rating : 2.5 mW (at 25℃)

3-6) Category temperature range : -40 ~ 90 ℃

4) Insulation resistance

Insulation resistance shall be more than 100MΩ which is measured at DC 100V between film area and terminals.

5) Climatic test

5-1) Dry heat

After the test samples were exposed in air at 90 ± 1℃ for 1,000 hours, the change ratio of the rated zero-power resistance shall be within ± 1% of the initial value.

5-2) Damp heat

After the test samples were exposed in the humidity of 95% at 40 ± 2℃ for 1,000 hours, the change ratio of the rated zero-power resistance shall be within ± 5% of the initial value.

5-3) Cold

After the test samples were exposed in air at -30 ± 1℃ for 1,000 hours, the change ratio of the rated zero-power resistance shall be within ± 5% of the initial value.

5-4) Loading

After DC 1mA current was applied to the test samples in the temperature of 40 ± 2℃ and the humidity of 95% for 1,000 hours, the change ratio of the rated zero-power resistance shall be within ± 1% of the initial value.

5-5) Change of temperature

One cycle of the change of temperature shall be carried out in the order of the following conditions.

- Room ambient temperature (Initial value) at -25 ± 3℃ for 30 minutes.
- Room ambient temperature for 3 minutes at 90 ± 2℃ for 30 minutes
- Room ambient temperature for 3 minutes after the 100 cycles of this process, the change ratio of the rated zero-power resistance shall be within ± 1% of the initial value.

6) Mechanical characteristics

6-1) Resistance to soldering heat

The terminals shall be dipped into a soldering bath having a temperature of 260 ± 5℃ to a point 2.0mm from the body and then be held there for 5 ± 1s, the change ratio of the rated zero-power resistance shall be within ±5% of the initial value.

6-2) Solderability

After dipping the terminal to a depth in a soldering bath of 235 ± 5℃ for ± 0.5s. Approximately 90% of terminals should be covered with solder uniformly.

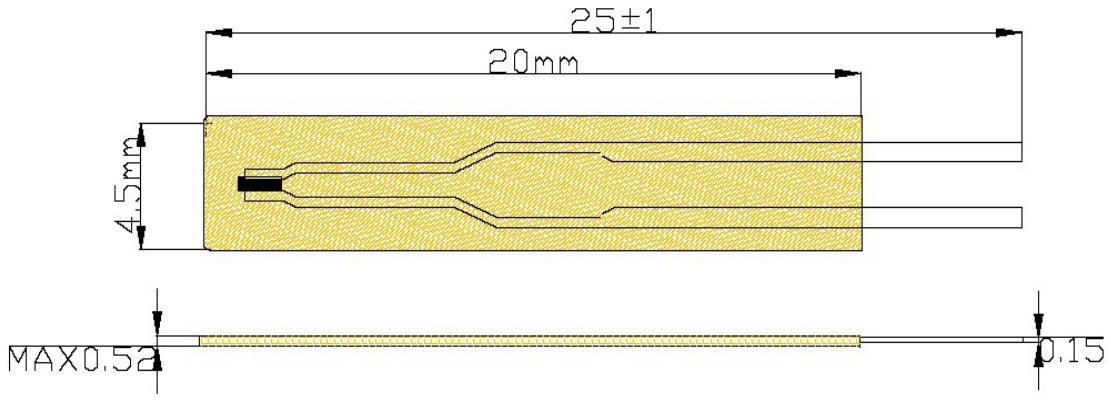
6-3) Free fall:

After three times fall to a maple board from 0.75 meter high, there shall be no visible damage and the change ratio of the rated zero-power resistance shall be within ± 1% of the initial value.

6-4) Robustness of termination

After 1N loading weight for 10 ± 1S was applied to the wise terminations, there shall be no visible damage and the change ratio of the rated zero-power resistance shall be within ± 1% of the initial value.

7）**Dimensions (mm)**



No.6 Building Songke Estate, Songshan Lake, National Hi-tech Industrial Development Zone
Dongguan, Guangdong Province China

TEL: +86 769 38988860 www.inhaos.com