

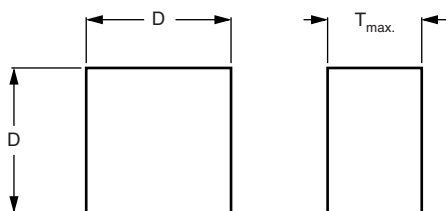
NTC Thermistors, Naked Chips



QUICK REFERENCE DATA

| PARAMETER | VALUE | UNIT |
|---|---------------------------------------|--------------------|
| Resistance value at 25 °C (R_{25}) | 2.2K to 470K | Ω |
| Tolerance on R_{25} -value | ± 1 ; ± 2 ; ± 3 ; ± 5 | % |
| $B_{25/85}$ -value | 3740 to 4570 | K |
| Tolerance on $B_{25/85}$ -value | ± 0.75 to ± 2.5 | % |
| Operating temperature range: At zero dissipation (continuously) For short periods | - 40 to + 125 ≤ 150 | $^{\circ}\text{C}$ |
| Climatic category (LCT/UCT/days) | 40/125/56 | |

DIMENSIONS in millimeters



Component outline

FEATURES

- High stability (tolerance on B-value between ± 2.5 % and ± 0.75 %) over a long life
- Excellent price/performance ratio
- For mechanical fixing in a housing or soldering directly to 'non-standard' leads
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



RoHS
COMPLIANT
HALOGEN
FREE

APPLICATIONS

- Temperature measurement, sensing, and control

DESCRIPTION

These thermistors have a negative temperature coefficient. The device consists of a silver metallized square chip.

DESIGN-IN SUPPORT

For complete curve computation, visit:
www.vishay.com/resistors-non-linear/cure-computation-list/

PACKAGING

The naked chips are placed in sealed polythene bags and packed in cardboard boxes. The smallest packaging quantity is 5000 units.

MOUNTING

By reflow or wave soldering in any position or mechanical fixing in a housing. Soldering directly to "non-standard" leads. Not suitable for ultrasonic soldering or wire bonding.

ELECTRICAL DATA AND ORDERING INFORMATION

| R_{25} (k Ω) | TCR (%/K) | D (mm) | T_{max} (mm) | $B_{25/85}$ -VALUE (K) | TOL. ON $B_{25/85}$ (%) | SAP MATERIAL AND ORDERING NUMBER NTCC100E4... (1) | OLD 12NC CODE 2381 640 0... (2) |
|---------------------------|--------------|---------------|-------------------|---------------------------|----------------------------|---|------------------------------------|
| 2.2 | 4.37 | 2.3 \pm 0.4 | 1.3 | 3977 | ± 0.75 | 222*B | *222 |
| 2.7 | 4.37 | 2.3 \pm 0.4 | | 3977 | ± 0.75 | 272*B | *272 |
| 3.3 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 332*B | *332 |
| 4.7 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 472*B | *472 |
| 5.0 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 502*B | *502 |
| 6.0 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 602*B | *602 |
| 6.8 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 682*B | *682 |
| 8.0 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 802*B | *802 |
| 10 | 4.37 | 2.0 \pm 0.4 | | 3977 | ± 0.75 | 103*B | *103 |
| 12 | 4.10 | 2.0 \pm 0.4 | | 3740 | ± 2.0 | 123*B | *123 |
| 15 | 4.10 | 2.0 \pm 0.4 | | 3740 | ± 2.0 | 153*B | *153 |
| 22 | 4.10 | 2.0 \pm 0.4 | | 3740 | ± 2.0 | 223*B | *223 |
| 33 | 4.46 | 2.0 \pm 0.4 | | 4090 | ± 1.5 | 333*B | *333 |
| 47 | 4.46 | 2.0 \pm 0.4 | | 4090 | ± 1.5 | 473*B | *473 |
| 68 | 4.57 | 2.0 \pm 0.4 | | 4190 | ± 1.5 | 683*B | *683 |
| 100 | 4.57 | 2.0 \pm 0.4 | | 4190 | ± 1.5 | 104*B | *104 |
| 150 | 4.75 | 2.0 \pm 0.4 | | 4370 | ± 2.5 | 154*B | *154 |
| 220 | 4.75 | 2.0 \pm 0.4 | | 4370 | ± 2.5 | 224*B | *224 |
| 330 | 4.95 | 2.0 \pm 0.4 | | 4570 | ± 1.5 | 334*B | *334 |
| 470 | 4.95 | 2.0 \pm 0.4 | | 4570 | ± 1.5 | 474*B | *474 |

Notes

(1) Replace * in SAP part no by J for 5 %, H for 3 %, G for 2 % and F for 1 % tolerance on R_{25}

(2) Replace * in 12NC by 3 for 5 %, 6 for 3 %, 4 for 2 % and 5 for 1 % tolerance on R_{25}



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