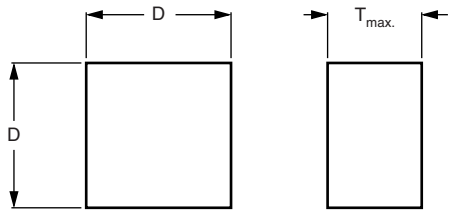
NTC Thermistors, Naked Chips


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	°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

Pb
e4
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/curve-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} (kΩ)	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 ± 0.4	1.3	3977	± 0.75	222*B	*222
2.7	4.37	2.3 ± 0.4		3977	± 0.75	272*B	*272
3.3	4.37	2.0 ± 0.4		3977	± 0.75	332*B	*332
4.7	4.37	2.0 ± 0.4		3977	± 0.75	472*B	*472
5.0	4.37	2.0 ± 0.4		3977	± 0.75	502*B	*502
6.0	4.37	2.0 ± 0.4		3977	± 0.75	602*B	*602
6.8	4.37	2.0 ± 0.4		3977	± 0.75	682*B	*682
8.0	4.37	2.0 ± 0.4		3977	± 0.75	802*B	*802
10	4.37	2.0 ± 0.4		3977	± 0.75	103*B	*103
12	4.10	2.0 ± 0.4		3740	± 2.0	123*B	*123
15	4.10	2.0 ± 0.4		3740	± 2.0	153*B	*153
22	4.10	2.0 ± 0.4		3740	± 2.0	223*B	*223
33	4.46	2.0 ± 0.4		4090	± 1.5	333*B	*333
47	4.46	2.0 ± 0.4		4090	± 1.5	473*B	*473
68	4.57	2.0 ± 0.4		4190	± 1.5	683*B	*683
100	4.57	2.0 ± 0.4		4190	± 1.5	104*B	*104
150	4.75	2.0 ± 0.4		4370	± 2.5	154*B	*154
220	4.75	2.0 ± 0.4		4370	± 2.5	224*B	*224
330	4.95	2.0 ± 0.4		4570	± 1.5	334*B	*334
470	4.95	2.0 ± 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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