Vishay BCcomponents

NTC Thermistors, 2-Point Mini Chip Sensor, Flexible Leads



DESIGN SUPPORT TOOLS AVAILABLE



QUICK REFERENCE DATA						
PARAMETER	VALUE	UNIT				
Resistance value at 25 °C	3K to 10K	Ω				
Tolerance on R_{25} -value	± 2.18	%				
B _{25/85} -value	3977	К				
Tolerance on B _{25/85} -value	± 0.75	%				
Operating temperature range at zero dissipation	-40 to +125	°C				
Accuracy for T measured between 0 °C and 50 °C	± 0.5	°C				
Maximum power dissipation at 55 °C	100	mW				
Min. dielectric withstanding voltage between terminals and coated body	500	V _{AC}				
Weight	≈ 0.2	g				

FEATURES

- Accuracy of 0.5 °C between 0 °C and 50 °C
- Small 2.4 mm diameter
- High stability over a long life
- Long and flexible leads for special mounting or assembly requirements
- AEC-Q200 qualified
- RoHS compliant, available with or without exemptions
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

APPLICATIONS

• Temperature measurement, sensing and control in automotive, industrial and consumer electronic equipment

DESCRIPTION

These negative temperature coefficient thermistors consist of a mini-chip soldered between two AWG#30 ETFE insulated (LE300) or non-insulated (LE201) 0.3 mm nickel leads and coated with a solid ocher color epoxy lacquer

PACKAGING

The thermistors are packed in cardboard boxes; the smallest packing quantity is 1000 units

MARKING

The coated body has no markings

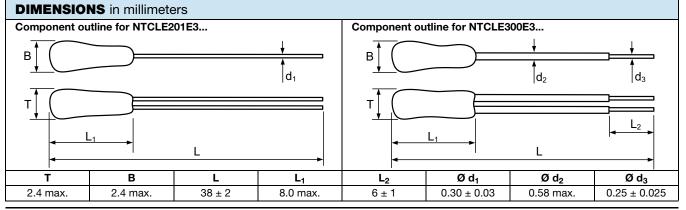
MOUNTING

By soldering in any position.

DESIGN-IN SUPPORT

For complete curve computation, please visit: www.vishay.com/thermistors/ntc-curve-list/

ELECTRIC	ELECTRICAL DATA AND ORDERING INFORMATION						
R ₂₅ (Ω)	R ₂₅ -TOL. (± %)	B _{25/85} (K)	B _{25/85} -TOL. (± %)	SAP MATERIAL AND ORDERING NUMBER RoHS COMPLIANT WITH EXEMPTIONS	SAP MATERIAL AND ORDERING NUMBER RoHS COMPLIANT WITHOUT EXEMPTIONS		
3000	2.18	3977	0.75	NTCLE201E3302SB	NTCLE201E3302SBA		
5000	2.18	3977	0.75	NTCLE201E3502SB	NTCLE201E3502SBA		
10 000	2.18	3977	0.75	NTCLE201E3103SB	NTCLE201E3103SBA		
3000	2.18	3977	0.75	NTCLE300E3302SB	NTCLE300E3302SBA		
5000	2.18	3977	0.75	NTCLE300E3502SB	NTCLE300E3502SBA		
10 000	2.18	3977	0.75	NTCLE300E3103SB	NTCLE300E3103SBA		



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1 For technical questions, contact: <u>nlr@vishay.com</u> Document Number: 29051



RoHS

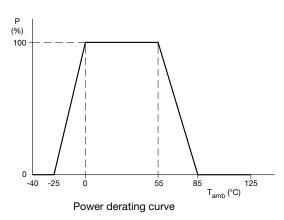
COMPLIANT



NTCLE201E3...SB, NTCLE300E3...SB

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DERATING



Note

• Zero power is considered as measuring power max. 1 % of max. power

Т _{орек} R _T /R ₂₅ (°С)	D (D	T-TOL.	TCR	<i>R</i>_T-VALUE (kΩ)				
	(± K)	(%/K)	-	E201E3SB OR NTCLE300				
				302	502	103		
-40	33.21	0.68	-6.57	99.63	166.1	332.1		
-35	23.99	0.66	-6.36	71.97	120.0	239.9		
-30	17.52	0.64	-6.15	52.56	87.60	175.2		
-25	12.93	0.62	-5.95	38.79	64.65	129.3		
-20	9.636	0.59	-5.76	28.91	48.18	96.36		
-15	7.250	0.57	-5.58	21.75	36.25	72.50		
-10	5.505	0.55	-5.40	16.51	27.52	55.05		
-5	4.216	0.52	-5.24	12.65	21.08	42.16		
0	3.255	0.50	-5.08	9.766	16.28	32.56		
5	2.534	0.50	-4.92	7.602	12.67	25.34		
10	1.987	0.50	-4.78	5.962	9.936	19.87		
15	1.570	0.50	-4.64	4.710	7.849	15.70		
20	1.249	0.50	-4.50	3.746	6.244	12.49		
25	1.000	0.50	-4.37	3.000	5.000	10.00		
30	0.8059	0.50	-4.25	2.418	4.030	8.059		
35	0.6535	0.50	-4.13	1.960	3.267	6.535		
40	0.5330	0.50	-4.02	1.599	2.665	5.330		
45	0.4372	0.50	-3.91	1.312	2.186	4.372		
50	0.3605	0.50	-3.80	1.082	1.803	3.606		
55	0.2989	0.55	-3.70	0.8966	1.494	2.989		
60	0.2490	0.61	-3.60	0.7470	1.245	2.490		
65	0.2084	0.66	-3.51	0.6253	1.042	2.084		
70	0.1753	0.72	-3.42	0.5259	0.8765	1.753		
75	0.1481	0.77	-3.33	0.4443	0.7405	1.481		
80	0.1256	0.83	-3.25	0.3769	0.6282	1.256		
85	0.1070	0.89	-3.16	0.3211	0.5352	1.070		
90	0.09154	0.95	-3.09	0.2746	0.4577	0.9154		
95	0.07860	1.02	-3.01	0.2358	0.3930	0.7860		
100	0.06773	1.08	-2.94	0.2032	0.3387	0.6773		
105	0.05858	1.14	-2.87	0.1757	0.2929	0.5858		
110	0.05083	1.21	-2.80	0.1525	0.2542	0.5083		
115	0.04426	1.27	-2.73	0.1328	0.2213	0.4426		
120	0.03866	1.34	-2.67	0.1160	0.1933	0.3866		
125	0.03387	1.41	-2.61	0.1016	0.1694	0.3387		

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