Vishay BCcomponents

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



LINKS TO ADDITIONAL RESOURCES



Related Documents

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	K				
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
- Material categorization: RoHS for definitions of compliance please see COMPLIANT www.vishay.com/doc?99912

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

Important mounting and handling instructions: see www.vishay.com/doc?29222 By soldering in any position.

DESIGN-IN SUPPORT

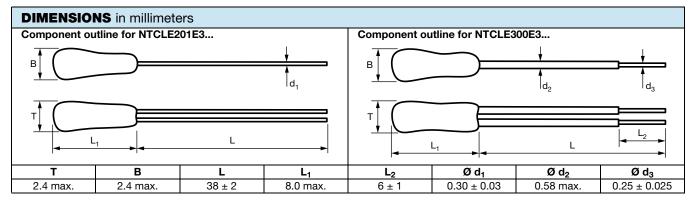
For complete curve computation, please visit: www.vishay.com/thermistors/ntc-curve-list/

ELECTRICAL DATA AND ORDERING INFORMATION						
R ₂₅	R ₂₅ -TOL.	B _{25/85}	B _{25/85} -TOL.	SAP MATERIAL AND ORDERING NUMBER		
(Ω)	(± %)	(K)	(± %)	RoHS-COMPLIANT WITH EXEMPTION ⁽¹⁾	RoHS-COMPLIANT	
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	

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



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1 For technical questions, contact: nlr@vishay.com

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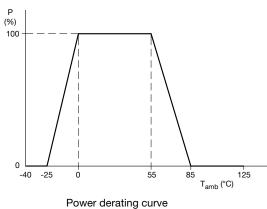
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NTCLE201E3...SB, NTCLE300E3...SB

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DERATING



Note

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

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES							
_					R _T -VALUE (kΩ)		
	R _T /R ₂₅	T-TOL. (± K)	TCR (%/K)	NTCLE201E3SB(A) OR NTCLE300E3SB(A)			
(°C)				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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