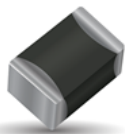


NTC SMD Thermistor with Ni/Sn termination

for Automotive, Industrial and General applications

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SpiCAT



KYOCERA AVX Chip NTC Thermistors are high quality devices developed especially for surface mounting applications. They are widely used for temperature compensation, but can also achieve temperature control of printed circuits in a wide range of applications, including automotive, industrial and general purpose. Ni barrier/100% Sn plated termination for lead free soldering.

Characteristics

Case Size	0805
Operating temperature	-55°C to +150°C
Resistance	180 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	4220K $\pm 3\%$
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 s
Termination	Ni barrier/100%Sn (for Pb free soldering)



MSL 1
Pb Free
260°C

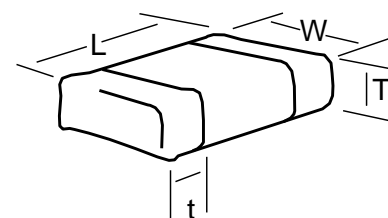


AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.0 ± 0.3	1.25 ± 0.2	1.3 max	0.2 min
	(0.079 ± 0.012)	(0.049 ± 0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB	12	P0	0184	H	--
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	12 = 0805	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BB = Cardboard tape (180mm reel, 4,000 pcs/reel) BF = Cardboard tape (180mm reel, 2,000 pcs/reel) BD = Cardboard tape (330mm reel, 10,000 pcs/reel) -- = Bulk (5000 pcs/bag)

* For selected PNs

NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.

Material Table

P0 (B25/85 = 4220K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	121.4	24.83	-7.56
-50	83.35	21.45	-7.32
-45	57.92	18.44	-7.09
-40	40.72	15.77	-6.87
-35	28.95	13.39	-6.66
-30	20.80	11.29	-6.45
-25	15.10	9.42	-6.26
-20	11.07	7.78	-6.07
-15	8.197	6.33	-5.89
-10	6.123	5.07	-5.71
-5	4.615	3.96	-5.54
0	3.508	3.00	-5.38
5	2.688	2.18	-5.22
10	2.076	1.48	-5.07
15	1.616	0.89	-4.92
20	1.267	0.40	-4.78
25	1.000	0.00	-4.64
30	0.7949	0.38	-4.51
35	0.6359	0.82	-4.38
40	0.5120	1.31	-4.26
45	0.4148	1.84	-4.14
50	0.3379	2.40	-4.03
55	0.2769	3.00	-3.92
60	0.2281	3.63	-3.81
65	0.1890	4.28	-3.71
70	0.1573	4.96	-3.61
75	0.1316	5.66	-3.52
80	0.1106	6.38	-3.42
85	0.0934	7.11	-3.34
90	0.0792	7.86	-3.25
95	0.0674	8.62	-3.17
100	0.0577	9.39	-3.09
105	0.0495	10.16	-3.01
110	0.0427	10.95	-2.93
115	0.0369	11.74	-2.86
120	0.0320	12.53	-2.79
125	0.0279	13.33	-2.72
130	0.0244	14.13	-2.66
135	0.0214	14.93	-2.59
140	0.0188	15.73	-2.53
145	0.0166	16.53	-2.47
150	0.0147	17.33	-2.42

B25/50	B25/75	B25/85	B25/100	B Tol
4181 K	4211 K	4220 K	4232 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
15,768,106	21,848,653	27,929,200
11,334,002	15,002,459	18,670,916
8,190,415	10,426,319	12,662,223
5,954,458	7,330,348	8,706,239
4,356,985	5,211,318	6,065,652
3,209,665	3,744,671	4,279,677
2,380,857	2,718,598	3,056,339
1,778,442	1,993,297	2,208,152
1,337,775	1,475,476	1,613,177
1,013,321	1,102,226	1,191,130
772,858	830,688	888,518
593,468	631,382	669,296
458,763	483,834	508,906
356,954	373,697	390,441
279,517	290,828	302,140
220,246	227,996	235,745
174,600	180,000	185,400
138,233	143,075	147,918
110,095	114,471	118,846
88,194	92,164	96,134
71,046	74,656	78,266
57,544	60,830	64,115
46,853	49,844	52,835
38,343	41,066	43,788
31,534	34,012	36,489
26,058	28,312	30,567
21,632	23,684	25,735
18,038	19,905	21,773
15,106	16,806	18,506
12,704	14,252	15,800
10,727	12,138	13,548
9,093.5	10,379	11,665
7,737.9	8,910.9	10,084
6,608.5	7,679.6	8,750.7
5,664.0	6,643.0	7,621.9
4,871.2	5,766.8	6,662.5
4,203.4	5,023.6	5,843.8
3,638.8	4,390.8	5,142.8
3,159.9	3,850.1	4,540.3
2,752.3	3,386.6	4,020.9
2,404.3	2,987.9	3,571.4
2,106.3	2,643.8	3,181.4