

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	5000 Ohm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	3480K $\pm 3\%$
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)



RoHS
COMPLIANT

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	J0	0502	M	BF
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

J0 (B25/85 = 3480K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	51.75	20.47	-6.23
-50	37.98	17.69	-6.03
-45	28.15	15.21	-5.84
-40	21.07	13.00	-5.65
-35	15.91	11.04	-5.48
-30	12.13	9.31	-5.31
-25	9.321	7.77	-5.15
-20	7.222	6.41	-4.99
-15	5.640	5.22	-4.84
-10	4.438	4.18	-4.69
-5	3.517	3.27	-4.55
0	2.807	2.48	-4.42
5	2.255	1.80	-4.29
10	1.824	1.22	-4.17
15	1.484	0.73	-4.05
20	1.215	0.33	-3.93
25	1.000	0.00	-3.82
30	0.8278	0.32	-3.71
35	0.6889	0.68	-3.61
40	0.5763	1.08	-3.51
45	0.4845	1.51	-3.41
50	0.4092	1.98	-3.32
55	0.3472	2.47	-3.23
60	0.2960	2.99	-3.15
65	0.2533	3.53	-3.06
70	0.2177	4.09	-2.98
75	0.1879	4.67	-2.90
80	0.1628	5.26	-2.83
85	0.1415	5.87	-2.76
90	0.1235	6.48	-2.69
95	0.1081	7.11	-2.62
100	0.0950	7.74	-2.55
105	0.0837	8.38	-2.49
110	0.0740	9.03	-2.43
115	0.0656	9.68	-2.37
120	0.0584	10.33	-2.31
125	0.0521	10.99	-2.26
130	0.0466	11.65	-2.21
135	0.0417	12.31	-2.15
140	0.0375	12.97	-2.10
145	0.0338	13.63	-2.06
150	0.0305	14.29	-2.01

B25/50	B25/75	B25/85	B25/100	B Tol
3443 K	3471 K	3480 K	3492 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
154,025	258,756	363,487
118,322	189,891	261,460
91,198	140,758	190,319
70,578	105,346	140,114
54,870	79,573	104,276
42,867	60,639	78,411
33,662	46,604	59,547
26,573	36,111	45,650
21,088	28,201	35,314
16,825	22,190	27,555
13,495	17,587	21,679
10,881	14,036	17,191
8,818.8	11,277	13,735
7,184.0	9,119.2	11,054
5,881.6	7,420.0	8,958.4
4,838.8	6,073.5	7,308.2
4,000.0	5,000.0	6,000.0
3,298.1	4,139.1	4,980.0
2,732.4	3,444.7	4,156.9
2,274.1	2,881.5	3,488.9
1,901.2	2,422.3	2,943.5
1,596.4	2,046.1	2,495.8
1,346.0	1,736.2	2,126.4
1,139.6	1,479.8	1,820.1
968.6	1,266.7	1,564.8
826.4	1,088.7	1,351.1
707.7	939.5	1,171.3
608.3	813.9	1,019.4
524.6	707.6	890.6
453.9	617.4	781.0
394.1	540.6	687.2
343.2	475.0	606.7
299.8	418.6	537.4
262.7	370.1	477.5
230.8	328.2	425.6
203.3	291.9	380.4
179.6	260.3	341.0
159.1	232.8	306.5
141.3	208.7	276.2
125.8	187.6	249.5
112.2	169.1	226.0
100.4	152.7	205.1