

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	4700 Ohm
Tolerance on Resistance (25°C)	$\pm 3\%$
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  Type NB = Ni/Sn Term for lead free soldering	12  Size 12 = 0805	J0  Material Code See Datasheet	0472  Resistance (Ohm) 2 Sig. Digits + Number of Zeros	H  Tolerance H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BD  Suffix: Packaging 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)
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* 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)
186,132	243,231	300,329
141,567	178,498	215,428
108,219	132,313	156,406
83,177	99,025	114,873
64,293	74,798	85,303
49,985	57,001	64,016
39,090	43,808	48,527
30,749	33,945	37,140
24,329	26,509	28,688
19,361	20,858	22,355
15,496	16,532	17,568
12,471	13,194	13,916
10,092	10,601	11,109
8,210.2	8,572.0	8,933.8
6,714.4	6,974.8	7,235.2
5,519.0	5,709.1	5,899.2
4,559.0	4,700.0	4,841.0
3,761.7	3,890.7	4,019.8
3,118.9	3,238.0	3,357.1
2,598.1	2,708.6	2,819.1
2,174.2	2,277.0	2,379.8
1,827.5	1,923.3	2,019.1
1,542.7	1,632.1	1,721.4
1,307.7	1,391.0	1,474.4
1,112.9	1,190.7	1,268.5
950.8	1,023.4	1,096.0
815.4	883.1	950.9
701.8	765.0	828.2
606.2	665.2	724.1
525.4	580.4	635.4
456.8	508.2	559.6
398.5	446.5	494.4
348.7	393.5	438.3
306.0	347.9	389.7
269.4	308.5	347.6
237.8	274.4	310.9
210.5	244.7	278.9
186.8	218.8	250.9
166.2	196.2	226.2
148.2	176.4	204.5
132.5	158.9	185.4
118.8	143.6	168.4