

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	1 MOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	4400K $\pm 3\%$
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  Type NB = Ni/Sn Term for lead free soldering	12  Size 12 = 0805	R0  Material Code See Datasheet	0105  Resistance (Ohm) 2 Sig. Digits + Number of Zeros	M  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

R0 (B25/85 = 4400K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	113.9	25.89	-7.13
-50	79.71	22.37	-6.95
-45	56.30	19.23	-6.77
-40	40.13	16.44	-6.60
-35	28.85	13.96	-6.44
-30	20.92	11.77	-6.28
-25	15.29	9.82	-6.12
-20	11.27	8.11	-5.97
-15	8.368	6.60	-5.82
-10	6.261	5.28	-5.68
-5	4.719	4.13	-5.53
0	3.583	3.13	-5.40
5	2.739	2.27	-5.26
10	2.108	1.54	-5.13
15	1.634	0.93	-5.00
20	1.274	0.42	-4.88
25	1.000	0.00	-4.75
30	0.7897	0.40	-4.64
35	0.6273	0.86	-4.52
40	0.5012	1.36	-4.41
45	0.4028	1.91	-4.30
50	0.3255	2.50	-4.19
55	0.2644	3.13	-4.09
60	0.2159	3.78	-3.98
65	0.1772	4.47	-3.89
70	0.1462	5.18	-3.79
75	0.1212	5.90	-3.70
80	0.1009	6.65	-3.60
85	0.0844	7.42	-3.52
90	0.0709	8.20	-3.43
95	0.0598	8.99	-3.35
100	0.0507	9.79	-3.26
105	0.0431	10.60	-3.19
110	0.0369	11.41	-3.11
115	0.0316	12.24	-3.03
120	0.0272	13.06	-2.96
125	0.0235	13.89	-2.89
130	0.0204	14.73	-2.82
135	0.0177	15.56	-2.76
140	0.0154	16.40	-2.69
145	0.0135	17.23	-2.63
150	0.0119	18.07	-2.57

B25/50	B25/75	B25/85	B25/100	B Tol
4326 K	4382 K	4400 K	4423 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
61,622,106	113,877,884	166,133,661
45,937,911	79,705,981	113,474,050
34,216,288	56,304,724	78,393,159
25,506,770	40,131,006	54,755,243
19,052,987	28,852,467	38,651,947
14,273,690	20,919,268	27,564,845
10,731,346	15,292,174	19,853,002
8,100,704	11,268,206	14,435,709
6,141,770	8,367,795	10,593,821
4,678,185	6,261,086	7,843,986
3,580,582	4,719,386	5,858,189
2,754,086	3,582,914	4,411,742
2,129,044	2,739,192	3,349,341
1,654,230	2,108,466	2,562,702
1,291,872	1,633,778	1,975,684
1,014,038	1,274,172	1,534,307
800,000	1,000,000	1,200,000
628,558	789,656	950,754
496,458	627,296	758,134
394,150	501,229	608,309
314,513	402,776	491,039
252,215	325,452	398,689
203,241	264,389	325,537
164,558	215,909	267,261
133,857	177,218	220,578
109,380	146,181	182,983
89,775	121,162	152,548
74,004	100,895	127,786
61,261	84,401	107,541
50,921	70,916	90,911
42,496	59,842	77,188
35,604	50,708	65,812
29,943	43,143	56,343
25,275	36,851	48,427
21,411	31,597	41,783
18,202	27,193	36,184
15,526	23,487	31,448
13,288	20,357	27,427
11,408	17,705	24,001
9,825.5	15,449	21,072
8,487.8	13,523	18,558
7,353.9	11,874	16,395