

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	1206
Operating temperature	-55°C to +150°C
Resistance	1 MOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	4400K $\pm 3\%$
Maximum dissipation at 25°C	0.24 W
Thermal dissipation factor	4 mW/°C
Thermal time constant	7 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)
1206	3.2 ± 0.4	1.6 ± 0.25	1.5 max	0.2 min
	(0.126 ± 0.016)	(0.063 ± 0.01)	(0.059) max	(0.008) min



How to Order (Packaging options)

NB	20	R0	0105	K	BE
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	20 = 1206	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BA = Plastic tape (180mm reel, 3,000 pcs/reel) BE = Plastic tape (180mm reel, 1,500 pcs/reel) BC = Plastic 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

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)
73,009,895	113,877,884	154,745,873
53,908,509	79,705,981	105,503,452
39,846,760	56,304,724	72,762,687
29,519,870	40,131,006	50,742,142
21,938,234	28,852,467	35,766,700
16,365,617	20,919,268	25,472,918
12,260,563	15,292,174	18,323,785
9,227,524	11,268,206	13,308,888
6,978,550	8,367,795	9,757,041
5,304,294	6,261,086	7,217,878
4,052,521	4,719,386	5,386,251
3,112,377	3,582,914	4,053,451
2,402,963	2,739,192	3,075,422
1,865,076	2,108,466	2,351,856
1,455,250	1,633,778	1,812,306
1,141,455	1,274,172	1,406,890
900,000	1,000,000	1,100,000
707,524	789,656	871,788
559,188	627,296	695,405
444,272	501,229	558,187
354,790	402,776	450,761
284,760	325,452	366,144
229,680	264,389	299,098
186,149	215,909	245,670
151,579	177,218	202,857
123,998	146,181	168,365
101,892	121,162	140,432
84,094	100,895	117,696
69,701	84,401	99,101
58,013	70,916	83,819
48,480	59,842	71,203
40,674	50,708	60,742
34,257	43,143	52,029
28,960	36,851	44,742
24,571	31,597	38,623
20,921	27,193	33,465
17,875	23,487	29,099
15,323	20,357	25,392
13,179	17,705	22,231
11,370	15,449	19,527
9,840.2	13,523	17,206
8,541.4	11,874	15,208