

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)	$\pm 5\%$
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	J	BC
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)
78,703,789	113,877,884	149,051,978
57,893,808	79,705,981	101,518,153
42,661,996	56,304,724	69,947,451
31,526,421	40,131,006	48,735,592
23,380,857	28,852,467	34,324,077
17,411,580	20,919,268	24,426,955
13,025,172	15,292,174	17,559,176
9,790,935	11,268,206	12,745,478
7,396,940	8,367,795	9,338,651
5,617,348	6,261,086	6,904,823
4,288,490	4,719,386	5,150,281
3,291,523	3,582,914	3,874,305
2,539,923	2,739,192	2,938,462
1,970,500	2,108,466	2,246,433
1,536,939	1,633,778	1,730,617
1,205,164	1,274,172	1,343,181
950,000	1,000,000	1,050,000
747,006	789,656	832,305
590,552	627,296	664,040
469,334	501,229	533,125
374,929	402,776	430,622
301,032	325,452	349,872
242,900	264,389	285,879
196,944	215,909	234,875
160,440	177,218	193,996
131,307	146,181	161,055
107,950	121,162	134,374
89,138	100,895	112,652
73,921	84,401	94,881
61,558	70,916	80,274
51,472	59,842	68,211
43,210	50,708	58,206
36,414	43,143	49,872
30,802	36,851	42,899
26,151	31,597	37,043
22,281	27,193	32,105
19,049	23,487	27,925
16,341	20,357	24,374
14,064	17,705	21,345
12,143	15,449	18,754
10,516	13,523	16,530
9,135.1	11,874	14,614