

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	22 kOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	3790K $\pm 3\%$
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	L0	0223	M	--
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

L0 (B25/85 = 3790K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	82.54	22.30	-7.12
-50	58.03	19.27	-6.87
-45	41.31	16.57	-6.63
-40	29.75	14.16	-6.40
-35	21.68	12.03	-6.18
-30	15.97	10.14	-5.98
-25	11.88	8.46	-5.78
-20	8.931	6.99	-5.59
-15	6.777	5.69	-5.40
-10	5.188	4.55	-5.23
-5	4.007	3.56	-5.06
0	3.120	2.70	-4.90
5	2.449	1.96	-4.75
10	1.937	1.33	-4.60
15	1.543	0.80	-4.46
20	1.238	0.36	-4.33
25	1.000	0.00	-4.20
30	0.8128	0.35	-4.07
35	0.6648	0.74	-3.95
40	0.5469	1.17	-3.84
45	0.4525	1.65	-3.73
50	0.3764	2.16	-3.62
55	0.3148	2.69	-3.52
60	0.2646	3.26	-3.42
65	0.2235	3.85	-3.33
70	0.1896	4.46	-3.24
75	0.1616	5.09	-3.15
80	0.1383	5.73	-3.07
85	0.1189	6.39	-2.98
90	0.1026	7.06	-2.91
95	0.0889	7.74	-2.83
100	0.0773	8.43	-2.76
105	0.0674	9.13	-2.69
110	0.0590	9.83	-2.62
115	0.0519	10.54	-2.56
120	0.0457	11.25	-2.49
125	0.0404	11.97	-2.43
130	0.0358	12.69	-2.37
135	0.0319	13.41	-2.32
140	0.0284	14.13	-2.26
145	0.0254	14.85	-2.21
150	0.0228	15.57	-2.16

B25/50	B25/75	B25/85	B25/100	B Tol
3765 K	3784 K	3790 K	3798 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
1,047,806	1,815,946	2,584,087
775,329	1,276,600	1,777,870
576,445	908,718	1,240,991
430,971	654,599	878,227
324,176	476,932	629,687
245,412	351,276	457,139
187,012	261,421	335,829
143,462	196,485	249,509
110,788	149,084	187,379
86,123	114,146	142,168
67,388	88,155	108,923
53,067	68,649	84,232
42,052	53,885	65,718
33,528	42,618	51,708
26,892	33,953	41,015
21,694	27,240	32,785
17,600	22,000	26,400
14,244	17,883	21,521
11,592	14,625	17,659
9,484.6	12,032	14,580
7,800.2	9,955.3	12,111
6,446.9	8,281.8	10,117
5,354.0	6,925.8	8,497.6
4,467.0	5,821.0	7,174.9
3,743.7	4,916.1	6,088.5
3,151.0	4,171.2	5,191.4
2,663.3	3,555.1	4,447.0
2,260.1	3,043.1	3,826.1
1,925.4	2,615.6	3,305.8
1,646.4	2,257.2	2,867.9
1,412.9	1,955.3	2,497.8
1,216.8	1,700.2	2,183.6
1,051.5	1,483.6	1,915.8
911.5	1,299.1	1,686.6
792.7	1,141.3	1,489.9
691.5	1,005.9	1,320.3
605.0	889.3	1,173.6
530.8	788.6	1,046.4
467.0	701.3	935.6
412.0	625.4	838.9
364.4	559.2	754.1
323.1	501.4	679.7