

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	18 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
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	0183	H	BA
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)
1,109,877	1,485,774	1,861,671
811,924	1,044,491	1,277,058
598,031	743,496	888,962
443,661	535,581	627,500
331,572	390,217	448,862
249,651	287,407	325,164
189,371	213,890	238,408
144,707	160,761	176,815
111,381	121,978	132,574
86,341	93,392	100,443
67,397	72,127	76,857
52,967	56,167	59,368
41,901	44,087	46,274
33,360	34,869	36,379
26,725	27,780	28,835
21,538	22,287	23,035
17,460	18,000	18,540
14,142	14,631	15,121
11,519	11,966	12,414
9,433.7	9,844.7	10,256
7,766.7	8,145.3	8,523.9
6,426.6	6,776.0	7,125.4
5,343.9	5,666.6	5,989.2
4,464.5	4,762.6	5,060.7
3,746.8	4,022.3	4,297.7
3,158.3	3,412.8	3,667.4
2,673.5	2,908.7	3,143.9
2,272.4	2,489.8	2,707.2
1,939.1	2,140.0	2,341.0
1,661.0	1,846.8	2,032.5
1,428.0	1,599.8	1,771.7
1,232.1	1,391.1	1,550.1
1,066.6	1,213.9	1,361.1
926.5	1,062.9	1,199.3
807.4	933.8	1,060.2
705.7	823.0	940.3
618.7	727.6	836.5
544.0	645.2	746.4
479.7	573.8	667.9
424.1	511.7	599.3
375.9	457.6	539.2
334.1	410.2	486.4