

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	15 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
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	0153	K	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

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)
838,227	1,238,145	1,638,063
615,674	870,409	1,125,143
454,989	619,580	784,172
338,475	446,317	554,159
253,547	325,181	396,814
191,277	239,506	287,735
145,333	178,241	211,150
111,212	133,967	156,723
85,702	101,648	117,594
66,503	77,827	89,150
51,957	60,106	68,255
40,862	46,806	52,750
32,346	36,740	41,133
25,766	29,058	32,350
20,650	23,150	25,650
16,649	18,572	20,496
13,500	15,000	16,500
10,931	12,193	13,454
8,901.0	9,971.9	11,043
7,287.1	8,203.9	9,120.6
5,997.1	6,787.7	7,578.4
4,960.3	5,646.7	6,333.1
4,122.7	4,722.1	5,321.6
3,442.6	3,968.8	4,495.1
2,887.7	3,351.9	3,816.1
2,432.8	2,844.0	3,255.2
2,058.3	2,423.9	2,789.6
1,748.4	2,074.8	2,401.2
1,491.1	1,783.4	2,075.6
1,276.4	1,539.0	1,801.5
1,096.7	1,333.2	1,569.7
945.6	1,159.2	1,372.9
818.1	1,011.5	1,205.0
710.1	885.7	1,061.4
618.3	778.2	938.0
540.1	685.8	831.6
473.1	606.4	739.6
415.7	537.7	659.7
366.2	478.2	590.1
323.5	426.4	529.3
286.6	381.3	476.0
254.5	341.9	429.2