

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	390 kOhm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	4300K $\pm 3\%$
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 WWWW

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	Q0	0394	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

Q0 (B25/85 = 4300K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	98.04	25.30	-6.87
-50	69.53	21.86	-6.70
-45	49.73	18.79	-6.53
-40	35.87	16.07	-6.37
-35	26.08	13.65	-6.22
-30	19.12	11.50	-6.07
-25	14.12	9.60	-5.92
-20	10.51	7.93	-5.78
-15	7.877	6.45	-5.64
-10	5.947	5.16	-5.50
-5	4.521	4.04	-5.37
0	3.460	3.06	-5.24
5	2.666	2.22	-5.11
10	2.067	1.51	-4.99
15	1.613	0.91	-4.87
20	1.266	0.41	-4.75
25	1.000	0.00	-4.63
30	0.7944	0.39	-4.52
35	0.6347	0.84	-4.41
40	0.5099	1.33	-4.30
45	0.4119	1.87	-4.20
50	0.3344	2.45	-4.09
55	0.2730	3.06	-3.99
60	0.2239	3.70	-3.90
65	0.1846	4.37	-3.80
70	0.1529	5.06	-3.71
75	0.1272	5.77	-3.62
80	0.1063	6.50	-3.53
85	0.0893	7.25	-3.44
90	0.0753	8.01	-3.36
95	0.0637	8.78	-3.28
100	0.0542	9.57	-3.20
105	0.0462	10.36	-3.13
110	0.0396	11.15	-3.05
115	0.0340	11.96	-2.98
120	0.0294	12.77	-2.91
125	0.0254	13.58	-2.84
130	0.0221	14.39	-2.77
135	0.0193	15.21	-2.71
140	0.0169	16.03	-2.64
145	0.0148	16.84	-2.58
150	0.0130	17.66	-2.52

B25/50	B25/75	B25/85	B25/100	B Tol
4221 K	4281 K	4300 K	4325 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
26,650,875	38,236,781	49,822,686
19,832,411	27,115,139	34,397,867
14,780,160	19,395,014	24,009,868
11,042,177	13,989,543	16,936,909
8,275,962	10,172,952	12,069,942
6,225,927	7,456,275	8,686,624
4,703,101	5,507,258	6,311,415
3,568,512	4,098,260	4,628,007
2,720,235	3,072,065	3,423,894
2,083,576	2,319,253	2,554,930
1,603,771	1,763,096	1,922,421
1,240,613	1,349,398	1,458,183
964,513	1,039,605	1,114,698
753,641	806,106	858,571
591,839	628,989	666,139
467,107	493,805	520,503
370,500	390,000	409,500
293,113	309,819	326,524
233,076	247,527	261,977
186,267	198,860	211,452
149,593	160,628	171,664
120,721	130,433	140,146
97,883	106,461	115,038
79,734	87,330	94,927
65,246	71,988	78,731
53,628	59,625	65,621
44,270	49,613	54,957
36,700	41,469	46,239
30,550	34,815	39,079
25,534	29,353	33,172
21,426	24,851	28,276
18,048	21,125	24,201
15,259	18,028	20,796
12,949	15,444	17,939
11,027	13,279	15,531
9,423.2	11,459	13,495
8,079.8	9,923.6	11,767
6,950.6	8,623.0	10,295
5,998.3	7,517.7	9,037.0
5,192.6	6,575.2	7,957.7
4,508.7	5,768.8	7,028.9
3,926.4	5,076.7	6,227.1