

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	68 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	4080K $\pm 3\%$
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	N0	0683	K	BE
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

N0 (B25/85 = 4080K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	110.1	24.01	-7.50
-50	75.89	20.74	-7.25
-45	52.97	17.83	-7.01
-40	37.42	15.25	-6.78
-35	26.75	12.95	-6.56
-30	19.33	10.91	-6.35
-25	14.11	9.11	-6.14
-20	10.41	7.52	-5.95
-15	7.758	6.12	-5.76
-10	5.834	4.90	-5.58
-5	4.426	3.83	-5.41
0	3.387	2.91	-5.24
5	2.614	2.11	-5.08
10	2.033	1.43	-4.93
15	1.593	0.86	-4.78
20	1.258	0.39	-4.64
25	1.000	0.00	-4.51
30	0.8004	0.37	-4.37
35	0.6449	0.80	-4.25
40	0.5228	1.26	-4.13
45	0.4264	1.77	-4.01
50	0.3497	2.32	-3.90
55	0.2885	2.90	-3.79
60	0.2392	3.51	-3.68
65	0.1994	4.14	-3.58
70	0.1671	4.80	-3.49
75	0.1406	5.48	-3.39
80	0.1189	6.17	-3.30
85	0.1010	6.88	-3.22
90	0.0862	7.60	-3.13
95	0.0738	8.33	-3.05
100	0.0635	9.08	-2.97
105	0.0548	9.83	-2.90
110	0.0475	10.58	-2.83
115	0.0413	11.35	-2.76
120	0.0360	12.11	-2.69
125	0.0315	12.89	-2.62
130	0.0277	13.66	-2.56
135	0.0244	14.43	-2.50
140	0.0216	15.21	-2.44
145	0.0191	15.98	-2.38
150	0.0170	16.76	-2.33

B25/50	B25/75	B25/85	B25/100	B Tol
4049 K	4072 K	4080 K	4090 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
4,940,678	7,486,619	10,032,560
3,574,111	5,160,477	6,746,843
2,599,551	3,602,127	4,604,703
1,902,350	2,544,834	3,187,319
1,401,346	1,818,736	2,236,126
1,039,407	1,314,253	1,589,098
776,387	959,815	1,143,242
584,049	708,117	832,184
442,481	527,533	612,585
337,591	396,689	455,787
259,356	300,983	342,609
200,613	230,339	260,065
156,214	177,737	199,260
122,436	138,239	154,041
96,574	108,340	120,106
76,648	85,531	94,414
61,200	68,000	74,800
48,783	54,429	60,074
39,116	43,850	48,584
31,544	35,548	39,553
25,578	28,992	32,406
20,852	23,782	26,712
17,086	19,617	22,148
14,071	16,268	18,466
11,643	13,561	15,479
9,679.2	11,360	13,042
8,082.8	9,562.6	11,042
6,779.0	8,086.5	9,394.0
5,709.3	6,868.6	8,027.9
4,828.0	5,859.2	6,890.4
4,098.7	5,018.8	5,938.9
3,492.8	4,316.1	5,139.5
2,987.3	3,726.1	4,464.9
2,564.1	3,228.7	3,893.3
2,208.4	2,807.7	3,407.1
1,908.3	2,450.1	2,991.9
1,654.3	2,145.2	2,636.1
1,438.5	1,884.3	2,330.1
1,254.6	1,660.3	2,065.9
1,097.4	1,467.3	1,837.2
962.6	1,300.6	1,638.5
846.7	1,156.0	1,465.3