

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	0805
Operating temperature	-55°C to +150°C
Resistance	3300 Ohm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	3910K $\pm 3\%$
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 s
Termination	Ni barrier/100%Sn (for Pb free soldering)



RoHS
COMPLIANT

MSL 1
Pb Free
260°C



AEC-Q200
based qualification







Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.0 ± 0.3	1.25 ± 0.2	1.3 max	0.2 min
	(0.079 ± 0.012)	(0.049 ± 0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB  Type NB = Ni/Sn Term for lead free soldering	12  Size 12 = 0805	MC  Material Code See Datasheet	0332  Resistance (Ohm) 2 Sig. Digits + Number of Zeros	J  Tolerance H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BB  Suffix: Packaging BB = Cardboard tape (180mm reel, 4,000 pcs/reel) BF = Cardboard tape (180mm reel, 2,000 pcs/reel) BD = Cardboard tape (330mm reel, 10,000 pcs/reel) -- = Bulk (5000 pcs/bag)
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* 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

MC (B25/85 = 3910K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	100.6	23.00	-7.56
-50	69.29	19.90	-7.27
-45	48.40	17.10	-7.00
-40	34.27	14.60	-6.75
-35	24.57	12.40	-6.50
-30	17.83	10.50	-6.27
-25	13.09	8.70	-6.05
-20	9.710	7.20	-5.84
-15	7.282	5.90	-5.64
-10	5.514	4.70	-5.45
-5	4.215	3.70	-5.27
0	3.250	2.80	-5.10
5	2.528	2.00	-4.93
10	1.982	1.40	-4.77
15	1.567	0.80	-4.62
20	1.247	0.40	-4.48
25	1.000	0.00	-4.34
30	0.8072	0.40	-4.21
35	0.6559	0.80	-4.08
40	0.5362	1.20	-3.96
45	0.4410	1.70	-3.85
50	0.3647	2.20	-3.74
55	0.3033	2.80	-3.63
60	0.2535	3.40	-3.53
65	0.2130	4.00	-3.43
70	0.1798	4.60	-3.34
75	0.1525	5.20	-3.25
80	0.1300	5.90	-3.16
85	0.1112	6.60	-3.08
90	0.0955	7.30	-2.99
95	0.0824	8.00	-2.92
100	0.0713	8.70	-2.84
105	0.0620	9.40	-2.77
110	0.0541	10.10	-2.70
115	0.0473	10.90	-2.63
120	0.0415	11.60	-2.57
125	0.0366	12.30	-2.51
130	0.0323	13.10	-2.45
135	0.0286	13.80	-2.39
140	0.0254	14.60	-2.33
145	0.0227	15.30	-2.28
150	0.0203	16.10	-2.23

B25/50	B25/75	B25/85	B25/100	B Tol
3887 K	3904 K	3910 K	3917 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
239,026	331,980	424,934
171,721	228,657	285,593
124,422	159,720	195,018
90,925	113,091	135,257
66,973	81,081	95,189
49,719	58,839	67,959
37,279	43,197	49,115
28,134	32,043	35,952
21,411	24,031	26,650
16,431	18,196	19,961
12,699	13,910	15,120
9,888.5	10,725	11,562
7,758.4	8,342.4	8,926.4
6,122.0	6,540.6	6,959.2
4,871.2	5,171.1	5,471.0
3,892.9	4,115.1	4,337.3
3,135.0	3,300.0	3,465.0
2,519.9	2,663.8	2,807.6
2,038.9	2,164.5	2,290.0
1,659.8	1,769.5	1,879.2
1,357.8	1,455.3	1,552.8
1,116.9	1,203.5	1,290.2
922.8	1,000.9	1,079.0
766.3	836.6	906.8
639.6	702.9	766.2
536.4	593.3	650.3
451.9	503.3	554.6
382.2	429.0	475.8
324.4	367.0	409.5
276.4	315.2	354.0
236.5	271.9	307.2
203.1	235.4	267.6
175.1	204.6	234.0
151.5	178.4	205.3
131.3	156.1	180.9
114.3	137.0	159.8
99.8	120.7	141.6
87.3	106.6	125.9
76.7	94.5	112.2
67.5	84.0	100.4
59.6	74.8	90.0
52.7	66.8	80.9