

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	270 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	4300K $\pm 3\%$
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	12	Q0	0274	K	BB
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	12 = 0805	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	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)

* 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)
17,127,025	26,471,617	35,816,210
12,791,530	18,772,019	24,752,509
9,561,053	13,427,317	17,293,582
7,160,331	9,685,068	12,209,806
5,377,372	7,042,813	8,708,254
4,052,155	5,162,037	6,271,918
3,065,357	3,812,717	4,560,077
2,328,646	2,837,257	3,345,867
1,776,899	2,126,814	2,476,729
1,362,194	1,605,637	1,849,080
1,049,273	1,220,605	1,391,937
812,176	934,198	1,056,221
631,753	719,727	807,700
493,848	558,073	622,299
387,962	435,454	482,946
306,289	341,865	377,441
243,000	270,000	297,000
192,200	214,490	236,779
152,792	171,365	189,937
122,070	137,672	153,274
98,004	111,204	124,404
79,061	90,300	101,539
64,080	73,704	83,327
52,178	60,460	68,741
42,678	49,838	56,998
35,063	41,279	47,494
28,931	34,348	39,764
23,972	28,710	33,447
19,945	24,102	28,260
16,662	20,321	23,981
13,973	17,205	20,436
11,763	14,625	17,486
9,940.1	12,481	15,021
8,429.9	10,692	12,954
7,174.5	9,193.3	11,212
6,127.1	7,933.4	9,739.6
5,250.2	6,870.2	8,490.1
4,513.5	5,969.8	7,426.0
3,892.5	5,204.5	6,516.6
3,367.3	4,552.0	5,736.8
2,921.7	3,993.8	5,065.9
2,542.5	3,514.7	4,486.8