

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)	$\pm 20\%$
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

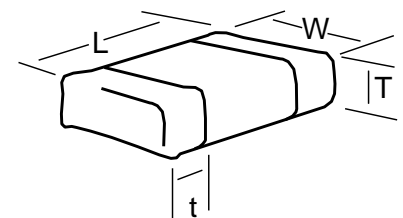


AEC-Q200
based qualification

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	M	BF
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)
14,479,863	26,471,617	38,463,372
10,914,328	18,772,019	26,629,711
8,218,321	13,427,317	18,636,314
6,191,824	9,685,068	13,178,312
4,673,090	7,042,813	9,412,536
3,535,952	5,162,037	6,788,122
2,684,085	3,812,717	4,941,349
2,044,920	2,837,257	3,629,593
1,564,218	2,126,814	2,689,411
1,201,630	1,605,637	2,009,643
927,212	1,220,605	1,513,998
718,756	934,198	1,149,641
559,781	719,727	879,673
438,040	558,073	678,106
344,417	435,454	526,491
272,102	341,865	411,628
216,000	270,000	324,000
170,751	214,490	258,228
135,656	171,365	207,073
108,303	137,672	167,041
86,883	111,204	135,525
70,031	90,300	110,569
56,710	73,704	90,697
46,132	60,460	74,787
37,695	49,838	61,982
30,935	41,279	51,622
25,496	34,348	43,199
21,101	28,710	36,318
17,535	24,102	30,670
14,629	20,321	26,013
12,253	17,205	22,156
10,301	14,625	18,949
8,692.0	12,481	16,269
7,360.7	10,692	14,023
6,255.2	9,193.3	12,131
5,333.8	7,933.4	10,533
4,563.2	6,870.2	9,177.2
3,916.5	5,969.8	8,023.0
3,372.0	5,204.5	7,037.1
2,912.1	4,552.0	6,192.0
2,522.3	3,993.8	5,465.3
2,191.0	3,514.7	4,838.3