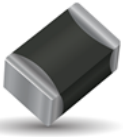


NTC SMD Thermistor with Ni/Sn termination

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	27 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	3950K $\pm 3\%$
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)



MSL 1
Pb Free
260°C

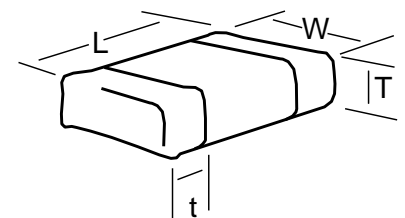


AEC-Q200
based qualification

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	M0 Material Code See Datasheet	0273 Resistance (Ohm) 2 Sig. Digits + Number of Zeros	K Tolerance H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BF 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

M0 (B25/85 = 3950K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	99.59	15.64	-7.42
-50	68.97	14.25	-7.16
-45	48.40	12.94	-6.91
-40	34.38	11.69	-6.67
-35	24.71	10.51	-6.45
-30	17.97	9.39	-6.23
-25	13.20	8.33	-6.02
-20	9.804	7.31	-5.82
-15	7.352	6.35	-5.63
-10	5.565	5.43	-5.45
-5	4.251	4.55	-5.28
0	3.275	3.70	-5.11
5	2.544	2.90	-4.95
10	1.992	2.13	-4.80
15	1.572	1.39	-4.65
20	1.249	0.68	-4.51
25	1.000	0.00	-4.38
30	0.8057	0.66	-4.25
35	0.6534	1.30	-4.12
40	0.5331	1.92	-4.00
45	0.4376	2.53	-3.89
50	0.3612	3.12	-3.77
55	0.2998	3.70	-3.67
60	0.2501	4.26	-3.57
65	0.2097	4.81	-3.47
70	0.1767	5.35	-3.37
75	0.1496	5.87	-3.28
80	0.1272	6.38	-3.19
85	0.1087	6.88	-3.11
90	0.0932	7.37	-3.03
95	0.0803	7.84	-2.95
100	0.0694	8.31	-2.87
105	0.0602	8.76	-2.80
110	0.0524	9.21	-2.73
115	0.0458	9.64	-2.66
120	0.0402	10.07	-2.60
125	0.0353	10.48	-2.53
130	0.0312	10.89	-2.47
135	0.0276	11.29	-2.41
140	0.0245	11.68	-2.36
145	0.0218	12.06	-2.30
150	0.0194	12.43	-2.25

B25/50	B25/75	B25/85	B25/100	B Tol
3925 K	3944 K	3950 K	3958 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
1,999,551	2,688,936	3,378,320
1,410,687	1,862,309	2,313,932
1,006,942	1,306,668	1,606,393
726,863	928,242	1,129,621
530,372	667,260	804,148
391,021	485,105	579,188
291,159	356,503	421,846
218,876	264,710	310,544
166,048	198,500	230,951
127,082	150,261	173,440
98,081	114,776	131,471
76,313	88,432	100,551
59,839	68,700	77,562
47,272	53,796	60,320
37,612	42,446	47,280
30,132	33,735	37,338
24,300	27,000	29,700
19,436	21,754	24,073
15,648	17,641	19,634
12,678	14,394	16,110
10,334	11,814	13,294
8,472.1	9,751.8	11,031
6,984.9	8,093.7	9,202.5
5,789.7	6,752.9	7,716.0
4,823.9	5,662.7	6,501.4
4,039.3	4,771.6	5,503.9
3,398.4	4,039.6	4,680.7
2,872.5	3,435.2	3,998.0
2,438.7	2,934.0	3,429.3
2,079.3	2,516.4	2,953.4
1,780.2	2,166.9	2,553.5
1,530.2	1,873.1	2,216.0
1,320.3	1,625.3	1,930.2
1,143.5	1,415.3	1,687.1
993.8	1,236.7	1,479.6
866.7	1,084.3	1,301.9
758.4	953.7	1,149.1
665.8	841.5	1,017.3
586.2	744.8	903.3
517.8	661.0	804.3
458.6	588.4	718.2
407.4	525.1	642.9