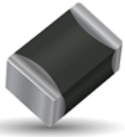


NTC SMD Thermistor with Ni/Sn termination

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	0603
Operating temperature	-55°C to +150°C
Resistance	50 kOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	4000K $\pm 3\%$
Maximum dissipation at 25°C	0.07 W
Thermal dissipation factor	1 mW/°C
Thermal time constant	4 s
Termination	Ni barrier/100%Sn (for Pb free soldering)



MSL 1
Pb Free
260°C

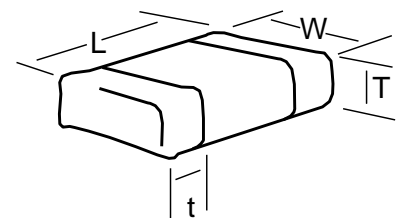


AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0603	1.6 ± 0.2	0.8 ± 0.2	1.0 max	0.2 min
	(0.063 ± 0.008)	(0.031 ± 0.008)	(0.039) max	(0.008) min



How to Order (Packaging options)

NB	21	M4	0503	M	BB
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	21 = 0603	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

M4 (B25/85 = 4000K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	98.22	23.50	-7.38
-50	68.17	20.31	-7.12
-45	47.92	17.46	-6.88
-40	34.11	14.93	-6.64
-35	24.57	12.68	-6.42
-30	17.89	10.68	-6.20
-25	13.17	8.92	-6.00
-20	9.790	7.36	-5.80
-15	7.349	5.99	-5.62
-10	5.568	4.80	-5.44
-5	4.256	3.75	-5.27
0	3.280	2.84	-5.11
5	2.549	2.07	-4.95
10	1.996	1.40	-4.80
15	1.574	0.84	-4.66
20	1.250	0.38	-4.52
25	1.000	0.00	-4.39
30	0.8049	0.36	-4.27
35	0.6519	0.78	-4.15
40	0.5311	1.24	-4.03
45	0.4352	1.74	-3.92
50	0.3586	2.27	-3.81
55	0.2970	2.84	-3.71
60	0.2472	3.44	-3.61
65	0.2068	4.06	-3.52
70	0.1738	4.70	-3.42
75	0.1468	5.36	-3.34
80	0.1245	6.04	-3.25
85	0.1060	6.73	-3.17
90	0.0906	7.44	-3.09
95	0.0778	8.16	-3.01
100	0.0670	8.89	-2.94
105	0.0579	9.62	-2.87
110	0.0503	10.36	-2.80
115	0.0438	11.11	-2.74
120	0.0382	11.86	-2.67
125	0.0335	12.62	-2.61
130	0.0294	13.37	-2.55
135	0.0259	14.13	-2.49
140	0.0229	14.89	-2.44
145	0.0203	15.65	-2.38
150	0.0181	16.41	-2.33

B25/50	B25/75	B25/85	B25/100	B Tol
3953 K	3984 K	4000 K	4010 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
2,774,496	4,910,981	7,047,466
2,034,500	3,408,255	4,782,011
1,498,606	2,396,227	3,293,847
1,109,868	1,705,590	2,301,311
826,919	1,228,313	1,629,708
620,036	894,510	1,168,985
467,971	658,373	848,775
355,556	489,500	623,444
271,949	367,471	462,992
209,380	278,414	347,447
162,262	212,802	263,343
126,554	164,025	201,495
99,325	127,447	155,569
78,433	99,789	121,146
62,306	78,710	95,115
49,782	62,523	75,263
40,000	50,000	60,000
32,049	40,245	48,440
25,822	32,595	39,367
20,916	26,556	32,196
17,030	21,760	26,490
13,935	17,928	21,922
11,458	14,850	18,241
9,465	12,362	15,259
7,854	10,341	12,829
6,545	8,692	10,838
5,477	7,338	9,199
4,602	6,223	7,843
3,882	5,299	6,715
3,287	4,530	5,773
2,793	3,888	4,983
2,382	3,350	4,317
2,038	2,896	3,754
1,750	2,513	3,276
1,507	2,188	2,869
1,302	1,911	2,520
1,128	1,675	2,221
980.6	1,472	1,963
854.6	1,297	1,740
746.7	1,147	1,547
654.2	1,017	1,379
574.6	903.6	1,233