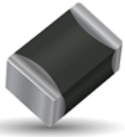


NTC SMD Thermistor with Ni/Sn termination

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



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)
0603	1.6 ± 0.2 (0.063 ± 0.008)	0.8 ± 0.2 (0.031 ± 0.008)	1.0 max (0.039) max	0.2 min (0.008) min



How to Order (Packaging options)

NB	21	M0	0333	H	BD
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

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)
2,673,950	3,286,477	3,899,004
1,883,504	2,276,156	2,668,808
1,342,500	1,597,038	1,851,577
967,805	1,134,518	1,301,231
705,320	815,540	925,760
519,418	592,906	666,393
386,362	435,725	485,089
290,162	323,534	356,906
219,931	242,611	265,290
168,177	183,652	199,127
129,697	140,282	150,867
100,838	108,084	115,329
79,014	83,967	88,920
62,379	65,751	69,122
49,602	51,879	54,155
39,715	41,232	42,750
32,010	33,000	33,990
25,616	26,589	27,561
20,634	21,561	22,488
16,726	17,592	18,458
13,641	14,439	15,238
11,189	11,919	12,649
9,230	9,892	10,555
7,654	8,253	8,853
6,380	6,921	7,462
5,345	5,832	6,319
4,499	4,937	5,375
3,805	4,199	4,593
3,232	3,586	3,940
2,757	3,076	3,394
2,361	2,648	2,936
2,030	2,289	2,548
1,753	1,986	2,220
1,519	1,730	1,941
1,320	1,512	1,703
1,152	1,325	1,498
1,009	1,166	1,323
885.7	1,029	1,171
780.2	910.3	1,040
689.4	807.9	926.5
610.9	719.1	827.4
542.8	641.8	740.9