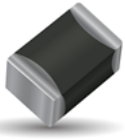


NTC SMD Thermistor with Ni/Sn termination

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	100 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	4160K $\pm 3\%$
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	N5	0104	H	BF
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

N5 (B25/85 = 4160K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	115.8	16.32	-7.52
-50	79.72	14.10	-7.28
-45	55.54	12.12	-7.04
-40	39.15	10.36	-6.82
-35	27.91	8.80	-6.61
-30	20.11	7.42	-6.40
-25	14.64	6.19	-6.20
-20	10.77	5.11	-6.01
-15	7.996	4.16	-5.83
-10	5.991	3.33	-5.65
-5	4.529	2.60	-5.48
0	3.454	1.97	-5.31
5	2.655	1.43	-5.16
10	2.057	0.97	-5.00
15	1.606	0.58	-4.86
20	1.263	0.26	-4.72
25	1.000	0.00	-4.58
30	0.7973	0.25	-4.45
35	0.6398	0.54	-4.32
40	0.5167	0.86	-4.20
45	0.4198	1.21	-4.09
50	0.3430	1.58	-3.97
55	0.2819	1.97	-3.86
60	0.2329	2.39	-3.76
65	0.1934	2.82	-3.66
70	0.1614	3.26	-3.56
75	0.1354	3.72	-3.46
80	0.1141	4.19	-3.37
85	0.0966	4.67	-3.29
90	0.0821	5.17	-3.20
95	0.0701	5.66	-3.12
100	0.0601	6.17	-3.04
105	0.0517	6.68	-2.96
110	0.0447	7.19	-2.89
115	0.0387	7.71	-2.82
120	0.0337	8.23	-2.75
125	0.0294	8.76	-2.68
130	0.0258	9.28	-2.62
135	0.0226	9.81	-2.55
140	0.0199	10.34	-2.49
145	0.0176	10.86	-2.44
150	0.0156	11.39	-2.38

B25/50	B25/75	B25/85	B25/100	B Tol
4124 K	4151 K	4160 K	4171 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
9,346,017	11,583,639	13,821,261
6,609,318	7,972,380	9,335,441
4,714,457	5,554,320	6,394,182
3,392,049	3,915,244	4,438,438
2,461,660	2,791,050	3,120,440
1,801,720	2,011,236	2,220,752
1,329,786	1,464,401	1,599,016
989,559	1,076,916	1,164,274
742,316	799,577	856,839
561,228	599,149	637,069
427,569	452,950	478,330
328,171	345,351	362,530
253,704	265,475	277,246
197,515	205,687	213,858
154,819	160,575	166,331
122,155	126,274	130,394
97,000	100,000	103,000
77,136	79,729	82,323
61,717	63,983	66,248
49,674	51,668	53,663
40,211	41,977	43,742
32,732	34,302	35,872
26,786	28,188	29,589
22,035	23,289	24,543
18,217	19,342	20,466
15,133	16,144	17,155
12,631	13,541	14,451
10,590	11,410	12,231
8,917	9,658	10,400
7,541	8,211	8,882
6,403	7,010	7,617
5,458	6,009	6,560
4,670	5,171	5,671
4,011	4,467	4,922
3,457	3,872	4,287
2,990	3,369	3,747
2,595	2,941	3,287
2,259	2,576	2,892
1,973	2,263	2,553
1,729	1,995	2,261
1,519	1,763	2,008
1,338	1,563	1,788