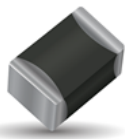


NTC SMD Thermistor with Ni/Sn termination

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	15 kOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	3630K $\pm 3\%$
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	K0	0153	M	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

K0 (B25/85 = 3630K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	56.27	21.36	-6.25
-50	41.22	18.45	-6.06
-45	30.48	15.86	-5.89
-40	22.74	13.56	-5.71
-35	17.11	11.52	-5.55
-30	12.98	9.71	-5.39
-25	9.931	8.10	-5.24
-20	7.655	6.69	-5.09
-15	5.945	5.45	-4.95
-10	4.651	4.36	-4.81
-5	3.663	3.41	-4.67
0	2.905	2.58	-4.54
5	2.319	1.88	-4.42
10	1.862	1.27	-4.30
15	1.505	0.77	-4.18
20	1.223	0.34	-4.07
25	1.000	0.00	-3.96
30	0.8219	0.33	-3.85
35	0.6792	0.71	-3.75
40	0.5641	1.12	-3.65
45	0.4708	1.58	-3.55
50	0.3949	2.07	-3.46
55	0.3327	2.58	-3.37
60	0.2816	3.12	-3.28
65	0.2393	3.69	-3.20
70	0.2043	4.27	-3.12
75	0.1751	4.87	-3.04
80	0.1506	5.49	-2.96
85	0.1301	6.12	-2.89
90	0.1128	6.76	-2.82
95	0.0981	7.41	-2.75
100	0.0856	8.07	-2.68
105	0.0750	8.74	-2.61
110	0.0659	9.42	-2.55
115	0.0581	10.09	-2.49
120	0.0514	10.78	-2.43
125	0.0455	11.46	-2.37
130	0.0405	12.15	-2.32
135	0.0361	12.84	-2.26
140	0.0323	13.53	-2.21
145	0.0289	14.22	-2.16
150	0.0260	14.91	-2.11

B25/50	B25/75	B25/85	B25/100	B Tol
3581 K	3618 K	3630 K	3646 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
494,973	844,033	1,193,092
380,556	618,296	856,036
293,207	457,165	621,124
226,594	341,067	455,541
175,759	256,657	337,555
136,894	194,750	252,607
107,099	148,965	190,832
84,181	114,829	145,478
66,486	89,179	111,872
52,768	69,759	86,751
42,087	54,949	67,812
33,734	43,576	53,417
27,172	34,781	42,390
21,993	27,936	33,879
17,887	22,575	27,263
14,617	18,350	22,083
12,000	15,000	18,000
9,822	12,329	14,836
8,078	10,188	12,297
6,674	8,461	10,249
5,538	7,062	8,586
4,616	5,923	7,230
3,863	4,990	6,117
3,247	4,223	5,200
2,740	3,590	4,440
2,321	3,064	3,808
1,973	2,626	3,279
1,684	2,260	2,835
1,442	1,952	2,461
1,239	1,692	2,144
1,068	1,472	1,875
924.0	1,285	1,645
801.8	1,125	1,449
697.8	988.6	1,279
609.2	871.4	1,134
533.3	770.4	1,008
468.2	683.1	898.0
412.1	607.4	802.7
363.7	541.6	719.4
321.9	484.2	646.5
285.5	434.0	582.5
253.9	390.0	526.1