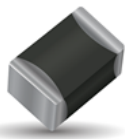


NTC SMD Thermistor with Ni/Sn termination

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)	$\pm 10\%$
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	K	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

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)
579,377	844,033	1,108,689
442,386	618,296	794,206
338,924	457,165	575,407
260,700	341,067	421,434
201,425	256,657	311,889
156,369	194,750	233,131
121,995	148,965	175,935
95,664	114,829	133,995
75,404	89,179	102,954
59,744	69,759	79,775
47,582	54,949	62,317
38,092	43,576	49,059
30,650	34,781	38,912
24,787	27,936	31,086
20,145	22,575	25,005
16,452	18,350	20,248
13,500	15,000	16,500
11,055	12,329	13,603
9,097	10,188	11,278
7,520	8,461	9,402
6,244	7,062	7,880
5,208	5,923	6,637
4,362	4,990	5,618
3,669	4,223	4,778
3,099	3,590	4,081
2,627	3,064	3,501
2,236	2,626	3,017
1,910	2,260	2,610
1,637	1,952	2,266
1,408	1,692	1,975
1,215	1,472	1,728
1,052	1,285	1,517
914.3	1,125	1,336
796.7	988.6	1,181
696.3	871.4	1,047
610.3	770.4	930.5
536.5	683.1	829.7
472.9	607.4	742.0
417.9	541.6	665.3
370.3	484.2	598.1
328.9	434.0	539.1
292.8	390.0	487.1