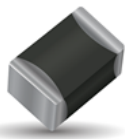


NTC SMD Thermistor with Ni/Sn termination

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	330 kOhm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	4300K $\pm 3\%$
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	Q0	0334	J	--
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

Q0 (B25/85 = 4300K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	98.04	25.30	-6.87
-50	69.53	21.86	-6.70
-45	49.73	18.79	-6.53
-40	35.87	16.07	-6.37
-35	26.08	13.65	-6.22
-30	19.12	11.50	-6.07
-25	14.12	9.60	-5.92
-20	10.51	7.93	-5.78
-15	7.877	6.45	-5.64
-10	5.947	5.16	-5.50
-5	4.521	4.04	-5.37
0	3.460	3.06	-5.24
5	2.666	2.22	-5.11
10	2.067	1.51	-4.99
15	1.613	0.91	-4.87
20	1.266	0.41	-4.75
25	1.000	0.00	-4.63
30	0.7944	0.39	-4.52
35	0.6347	0.84	-4.41
40	0.5099	1.33	-4.30
45	0.4119	1.87	-4.20
50	0.3344	2.45	-4.09
55	0.2730	3.06	-3.99
60	0.2239	3.70	-3.90
65	0.1846	4.37	-3.80
70	0.1529	5.06	-3.71
75	0.1272	5.77	-3.62
80	0.1063	6.50	-3.53
85	0.0893	7.25	-3.44
90	0.0753	8.01	-3.36
95	0.0637	8.78	-3.28
100	0.0542	9.57	-3.20
105	0.0462	10.36	-3.13
110	0.0396	11.15	-3.05
115	0.0340	11.96	-2.98
120	0.0294	12.77	-2.91
125	0.0254	13.58	-2.84
130	0.0221	14.39	-2.77
135	0.0193	15.21	-2.71
140	0.0169	16.03	-2.64
145	0.0148	16.84	-2.58
150	0.0130	17.66	-2.52

B25/50	B25/75	B25/85	B25/100	B Tol
4221 K	4281 K	4300 K	4325 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
22,550,740	32,354,199	42,157,658
16,781,271	22,943,579	29,105,888
12,506,289	16,411,166	20,316,042
9,343,380	11,837,306	14,331,231
7,002,737	8,607,883	10,213,028
5,268,092	6,309,156	7,350,220
3,979,547	4,659,988	5,340,428
3,019,511	3,467,758	3,916,006
2,301,737	2,599,439	2,897,141
1,763,025	1,962,445	2,161,864
1,357,037	1,491,851	1,626,664
1,049,749	1,141,798	1,233,847
816,126	879,666	943,206
637,696	682,089	726,483
500,787	532,221	563,656
395,244	417,835	440,425
313,500	330,000	346,500
248,019	262,154	276,289
197,218	209,446	221,673
157,610	168,266	178,921
126,578	135,916	145,254
102,148	110,367	118,585
82,824	90,082	97,340
67,468	73,895	80,322
55,208	60,913	66,618
45,377	50,452	55,526
37,459	41,980	46,502
31,054	35,089	39,125
25,850	29,459	33,067
21,606	24,837	28,068
18,130	21,028	23,926
15,271	17,875	20,478
12,912	15,254	17,597
10,957	13,068	15,179
9,331	11,236	13,142
7,974	9,696	11,419
6,837	8,397	9,957
5,881	7,296	8,711
5,076	6,361	7,647
4,394	5,564	6,733
3,815	4,881	5,948
3,322	4,296	5,269