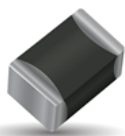


NTC SMD Thermistor with Ni/Sn termination

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	0805
Operating temperature	-55°C to +150°C
Resistance	10 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	3630K $\pm 3\%$
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 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)
0805	2.0 ± 0.3	1.25 ± 0.2	1.3 max	0.2 min
	(0.079 ± 0.012)	(0.049 ± 0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB  Type NB = Ni/Sn Term for lead free soldering	12  Size 12 = 0805	K0  Material Code See Datasheet	0103  Resistance (Ohm) 2 Sig. Digits + Number of Zeros	H  Tolerance H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BF  Suffix: Packaging 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)
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* 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)
425,639	562,688	699,738
323,778	412,197	500,617
247,284	304,777	362,270
189,717	227,378	265,039
146,261	171,105	195,949
113,334	129,834	146,333
88,282	99,310	110,339
69,135	76,553	83,971
54,431	59,453	64,474
43,085	46,506	49,928
34,286	36,633	38,980
27,428	29,050	30,673
22,057	23,187	24,318
17,828	18,624	19,420
14,483	15,050	15,617
11,824	12,233	12,642
9,700.0	10,000	10,300
7,945.6	8,219.4	8,493.2
6,539.9	6,791.7	7,043.5
5,408.1	5,640.8	5,873.4
4,492.5	4,708.1	4,923.7
3,748.5	3,948.5	4,148.5
3,141.2	3,326.8	3,512.5
2,643.2	2,815.6	2,988.0
2,233.3	2,393.3	2,553.3
1,894.3	2,042.8	2,191.3
1,613.0	1,750.8	1,888.6
1,378.5	1,506.4	1,634.2
1,182.4	1,301.0	1,419.6
1,017.7	1,127.8	1,237.9
878.9	981.1	1,083.3
761.6	856.4	951.3
662.0	750.1	838.2
577.3	659.1	740.9
504.9	580.9	657.0
442.8	513.6	584.4
389.5	455.4	521.3
343.6	404.9	466.3
303.9	361.1	418.2
269.4	322.8	376.1
239.5	289.3	339.1
213.4	260.0	306.5