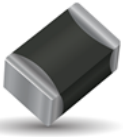


NTC SMD Thermistor with Ni/Sn termination

for Automotive, Industrial and General applications

To view data online visit:

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	82 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	4160K $\pm 3\%$
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)



RoHS
COMPLIANT

MSL 1
Pb Free
260°C

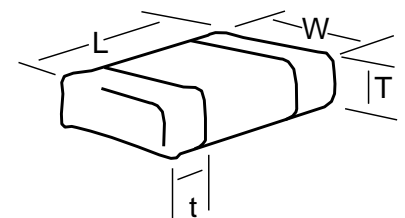


AEC-Q200
based qualification

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	12	N5	0823	H	BD
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	12 = 0805	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)
7,663,734	9,498,584	11,333,434
5,419,641	6,537,351	7,655,062
3,865,855	4,554,542	5,243,230
2,781,480	3,210,500	3,639,520
2,018,561	2,288,661	2,558,761
1,477,410	1,649,214	1,821,017
1,090,424	1,200,809	1,311,193
811,438	883,072	954,705
608,699	655,653	702,608
460,207	491,302	522,396
350,607	371,419	392,231
269,100	283,187	297,275
208,038	217,690	227,341
161,962	168,663	175,364
126,952	131,671	136,391
100,167	103,545	106,923
79,540	82,000	84,460
63,251	65,378	67,505
50,608	52,466	54,323
40,733	42,368	44,003
32,973	34,421	35,869
26,840	28,128	29,415
21,965	23,114	24,263
18,068	19,097	20,125
14,938	15,860	16,782
12,409	13,238	14,067
10,357	11,103	11,850
8,683.4	9,356.4	10,029
7,312.1	7,919.9	8,527.7
6,183.3	6,733.1	7,282.9
5,250.2	5,748.2	6,246.2
4,475.5	4,927.2	5,379.0
3,829.7	4,240.1	4,650.5
3,289.2	3,662.6	4,035.9
2,835.1	3,175.3	3,515.4
2,452.2	2,762.5	3,072.9
2,128.1	2,411.6	2,695.2
1,852.8	2,112.2	2,371.7
1,618.2	1,855.9	2,093.6
1,417.6	1,635.7	1,853.8
1,245.5	1,445.9	1,646.4
1,097.4	1,281.9	1,466.3