

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	1206
Operating temperature	-55°C to +150°C
Resistance	390 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	4300K $\pm 3\%$
Maximum dissipation at 25°C	0.24 W
Thermal dissipation factor	4 mW/°C
Thermal time constant	7 s
Termination	Ni barrier/100%Sn (for Pb free soldering)



MSL 1
Pb Free
260°C

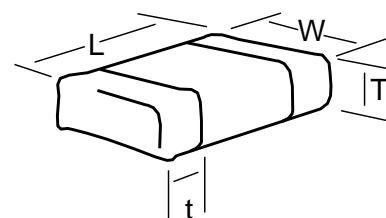


AEC-Q200
based qualification

Dimensions WWWW

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
1206	3.2 ± 0.4	1.6 ± 0.25	1.5 max	0.2 min
	(0.126 ± 0.016)	(0.063 ± 0.01)	(0.059) max	(0.008) min



How to Order (Packaging options)

NB	20	Q0	0394	K	--
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	20 = 1206	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BA = Plastic tape (180mm reel, 3,000 pcs/reel) BE = Plastic tape (180mm reel, 1,500 pcs/reel) BC = Plastic 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)
24,739,036	38,236,781	51,734,526
18,476,654	27,115,139	35,753,624
13,810,409	19,395,014	24,979,619
10,342,700	13,989,543	17,636,386
7,767,315	10,172,952	12,578,590
5,853,113	7,456,275	9,059,437
4,427,738	5,507,258	6,586,778
3,363,599	4,098,260	4,832,920
2,566,632	3,072,065	3,577,498
1,967,613	2,319,253	2,670,893
1,515,616	1,763,096	2,010,576
1,173,143	1,349,398	1,525,653
912,532	1,039,605	1,166,678
713,335	806,106	898,876
560,390	628,989	697,588
442,417	493,805	545,193
351,000	390,000	429,000
277,622	309,819	342,015
220,700	247,527	274,354
176,324	198,860	221,395
141,561	160,628	179,695
114,199	130,433	146,668
92,560	106,461	120,361
75,368	87,330	99,293
61,647	71,988	82,330
50,646	59,625	68,603
41,789	49,613	57,437
34,626	41,469	48,312
28,810	34,815	40,820
24,067	29,353	34,639
20,183	24,851	29,519
16,992	21,125	25,258
14,358	18,028	21,697
12,177	15,444	18,711
10,363	13,279	16,195
8,850.3	11,459	14,068
7,583.6	9,923.6	12,264
6,519.5	8,623.0	10,726
5,622.4	7,517.7	9,412.9
4,863.8	6,575.2	8,286.5
4,220.2	5,768.8	7,317.4
3,672.5	5,076.7	6,480.9