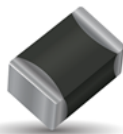


NTC SMD Thermistor with Ni/Sn termination

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	220 kOhm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	4220K $\pm 3\%$
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

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

Type

NB = Ni/Sn Term for lead free soldering

20

Size

20 = 1206

P0

Material Code

See Datasheet

0224

Resistance (Ohm)

2 Sig. Digits + Number of Zeros

J

Tolerance

H = $\pm 3\%*$
J = $\pm 5\%$
K = $\pm 10\%$
M = $\pm 20\%$

* For selected PNs

BE

Suffix: Packaging

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)

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

P0 (B25/85 = 4220K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	121.4	24.83	-7.56
-50	83.35	21.45	-7.32
-45	57.92	18.44	-7.09
-40	40.72	15.77	-6.87
-35	28.95	13.39	-6.66
-30	20.80	11.29	-6.45
-25	15.10	9.42	-6.26
-20	11.07	7.78	-6.07
-15	8.197	6.33	-5.89
-10	6.123	5.07	-5.71
-5	4.615	3.96	-5.54
0	3.508	3.00	-5.38
5	2.688	2.18	-5.22
10	2.076	1.48	-5.07
15	1.616	0.89	-4.92
20	1.267	0.40	-4.78
25	1.000	0.00	-4.64
30	0.7949	0.38	-4.51
35	0.6359	0.82	-4.38
40	0.5120	1.31	-4.26
45	0.4148	1.84	-4.14
50	0.3379	2.40	-4.03
55	0.2769	3.00	-3.92
60	0.2281	3.63	-3.81
65	0.1890	4.28	-3.71
70	0.1573	4.96	-3.61
75	0.1316	5.66	-3.52
80	0.1106	6.38	-3.42
85	0.0934	7.11	-3.34
90	0.0792	7.86	-3.25
95	0.0674	8.62	-3.17
100	0.0577	9.39	-3.09
105	0.0495	10.16	-3.01
110	0.0427	10.95	-2.93
115	0.0369	11.74	-2.86
120	0.0320	12.53	-2.79
125	0.0279	13.33	-2.72
130	0.0244	14.13	-2.66
135	0.0214	14.93	-2.59
140	0.0188	15.73	-2.53
145	0.0166	16.53	-2.47
150	0.0147	17.33	-2.42

B25/50	B25/75	B25/85	B25/100	B Tol
4181 K	4211 K	4220 K	4232 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
18,738,051	26,703,909	34,669,767
13,485,942	18,336,339	23,186,735
9,755,642	12,743,279	15,730,916
7,098,485	8,959,315	10,820,145
5,197,816	6,369,389	7,540,962
3,831,387	4,576,820	5,322,253
2,843,482	3,322,731	3,801,980
2,124,926	2,436,252	2,747,577
1,598,991	1,803,360	2,007,728
1,211,561	1,347,165	1,482,768
924,299	1,015,285	1,106,272
709,917	771,689	833,462
548,883	591,353	633,823
427,143	456,741	486,340
334,522	355,457	376,391
263,616	278,661	293,706
209,000	220,000	231,000
165,454	174,870	184,286
131,763	139,909	148,055
105,540	112,645	119,750
85,009	91,247	97,484
68,845	74,347	79,850
56,047	60,921	65,795
45,860	50,192	54,523
37,710	41,570	45,429
31,156	34,604	38,052
25,860	28,947	32,033
21,560	24,329	27,097
18,053	20,541	23,029
15,179	17,419	19,659
12,814	14,835	16,855
10,861	12,686	14,511
9,239.6	10,891	12,543
7,889.3	9,386.2	10,883
6,760.3	8,119.2	9,478.1
5,812.7	7,048.4	8,284.0
5,014.6	6,139.9	7,265.2
4,340.1	5,366.5	6,393.0
3,767.9	4,705.7	5,643.4
3,281.1	4,139.1	4,997.2
2,865.6	3,651.9	4,438.1
2,509.8	3,231.4	3,953.0