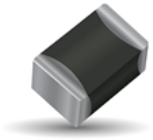
NB20P00224KBE

(1206, 220 kOhm ±10%, 4220K, Ni/100% Sn)

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	1206
Operating temperature	-55°C to +150°C
Resistance	220 kOhm
Tolerance on Resistance (25°C)	±10%
B 25/85	4220K±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)

RoHS COMPLIANT

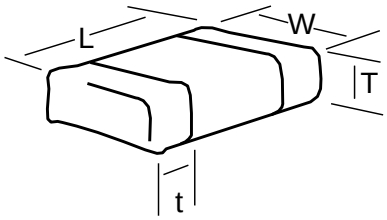
MSL 1
Pb Free
260°C

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	P0	0224	K	BE
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 = ±3%* J = ±5% K = ±10% M = ±20% * For selected PNs	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 beleived 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±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4181 K	4211 K	4220 K	4232 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	121.4	24.83	-7.56	17,402,856	26,703,909	36,004,962
-50	83.35	21.45	-7.32	12,569,125	18,336,339	24,103,552
-45	57.92	18.44	-7.09	9,118,478	12,743,279	16,368,080
-40	40.72	15.77	-6.87	6,650,519	8,959,315	11,268,110
-35	28.95	13.39	-6.66	4,879,347	6,369,389	7,859,431
-30	20.80	11.29	-6.45	3,602,546	4,576,820	5,551,094
-25	15.10	9.42	-6.26	2,677,345	3,322,731	3,968,117
-20	11.07	7.78	-6.07	2,003,114	2,436,252	2,869,390
-15	8.197	6.33	-5.89	1,508,823	1,803,360	2,097,896
-10	6.123	5.07	-5.71	1,144,203	1,347,165	1,550,127
-5	4.615	3.96	-5.54	873,535	1,015,285	1,157,036
0	3.508	3.00	-5.38	671,332	771,689	872,046
5	2.688	2.18	-5.22	519,315	591,353	663,391
10	2.076	1.48	-5.07	404,305	456,741	509,177
15	1.616	0.89	-4.92	316,750	355,457	394,164
20	1.267	0.40	-4.78	249,683	278,661	307,639
25	1.000	0.00	-4.64	198,000	220,000	242,000
30	0.7949	0.38	-4.51	156,710	174,870	193,029
35	0.6359	0.82	-4.38	124,767	139,909	155,050
40	0.5120	1.31	-4.26	99,907	112,645	125,383
45	0.4148	1.84	-4.14	80,447	91,247	102,046
50	0.3379	2.40	-4.03	65,127	74,347	83,567
55	0.2769	3.00	-3.92	53,001	60,921	68,841
60	0.2281	3.63	-3.81	43,351	50,192	57,032
65	0.1890	4.28	-3.71	35,632	41,570	47,508
70	0.1573	4.96	-3.61	29,426	34,604	39,782
75	0.1316	5.66	-3.52	24,413	28,947	33,481
80	0.1106	6.38	-3.42	20,343	24,329	28,314
85	0.0934	7.11	-3.34	17,026	20,541	24,056
90	0.0792	7.86	-3.25	14,308	17,419	20,530
95	0.0674	8.62	-3.17	12,073	14,835	17,597
100	0.0577	9.39	-3.09	10,226	12,686	15,145
105	0.0495	10.16	-3.01	8,695.0	10,891	13,087
110	0.0427	10.95	-2.93	7,420.0	9,386.2	11,352
115	0.0369	11.74	-2.86	6,354.3	8,119.2	9,884.0
120	0.0320	12.53	-2.79	5,460.3	7,048.4	8,636.4
125	0.0279	13.33	-2.72	4,707.6	6,139.9	7,572.2
130	0.0244	14.13	-2.66	4,071.7	5,366.5	6,661.3
135	0.0214	14.93	-2.59	3,532.7	4,705.7	5,878.7
140	0.0188	15.73	-2.53	3,074.2	4,139.1	5,204.1
145	0.0166	16.53	-2.47	2,683.0	3,651.9	4,620.7
150	0.0147	17.33	-2.42	2,348.2	3,231.4	4,114.5