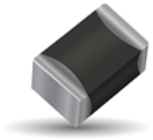
NB20P00224MBA

(1206, 220 kOhm ±20%, 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)	±20%
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

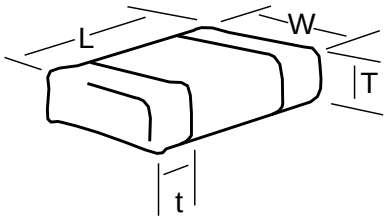
MSL 1
Pb Free
260°C

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	M	BA
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	14,732,465	26,703,909	38,675,353
-50	83.35	21.45	-7.32	10,735,492	18,336,339	25,937,186
-45	57.92	18.44	-7.09	7,844,150	12,743,279	17,642,408
-40	40.72	15.77	-6.87	5,754,588	8,959,315	12,164,042
-35	28.95	13.39	-6.66	4,242,408	6,369,389	8,496,370
-30	20.80	11.29	-6.45	3,144,864	4,576,820	6,008,776
-25	15.10	9.42	-6.26	2,345,072	3,322,731	4,300,390
-20	11.07	7.78	-6.07	1,759,489	2,436,252	3,113,015
-15	8.197	6.33	-5.89	1,328,487	1,803,360	2,278,232
-10	6.123	5.07	-5.71	1,009,486	1,347,165	1,684,843
-5	4.615	3.96	-5.54	772,006	1,015,285	1,258,565
0	3.508	3.00	-5.38	594,163	771,689	949,215
5	2.688	2.18	-5.22	460,180	591,353	722,526
10	2.076	1.48	-5.07	358,631	456,741	554,851
15	1.616	0.89	-4.92	281,204	355,457	429,710
20	1.267	0.40	-4.78	221,817	278,661	335,505
25	1.000	0.00	-4.64	176,000	220,000	264,000
30	0.7949	0.38	-4.51	139,223	174,870	210,516
35	0.6359	0.82	-4.38	110,776	139,909	169,041
40	0.5120	1.31	-4.26	88,643	112,645	136,647
45	0.4148	1.84	-4.14	71,322	91,247	111,171
50	0.3379	2.40	-4.03	57,693	74,347	91,002
55	0.2769	3.00	-3.92	46,909	60,921	74,933
60	0.2281	3.63	-3.81	38,332	50,192	62,051
65	0.1890	4.28	-3.71	31,475	41,570	51,665
70	0.1573	4.96	-3.61	25,965	34,604	43,242
75	0.1316	5.66	-3.52	21,518	28,947	36,375
80	0.1106	6.38	-3.42	17,911	24,329	30,747
85	0.0934	7.11	-3.34	14,971	20,541	26,110
90	0.0792	7.86	-3.25	12,566	17,419	22,272
95	0.0674	8.62	-3.17	10,589	14,835	19,080
100	0.0577	9.39	-3.09	8,957.8	12,686	16,414
105	0.0495	10.16	-3.01	7,605.9	10,891	14,176
110	0.0427	10.95	-2.93	6,481.4	9,386.2	12,291
115	0.0369	11.74	-2.86	5,542.4	8,119.2	10,696
120	0.0320	12.53	-2.79	4,755.5	7,048.4	9,341.2
125	0.0279	13.33	-2.72	4,093.7	6,139.9	8,186.2
130	0.0244	14.13	-2.66	3,535.1	5,366.5	7,197.9
135	0.0214	14.93	-2.59	3,062.1	4,705.7	6,349.3
140	0.0188	15.73	-2.53	2,660.3	4,139.1	5,618.0
145	0.0166	16.53	-2.47	2,317.8	3,651.9	4,985.9
150	0.0147	17.33	-2.42	2,025.0	3,231.4	4,437.7