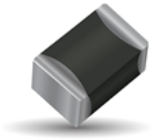
NB20P00224HBA

(1206, 220 kOhm ±3%, 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)	±3%
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

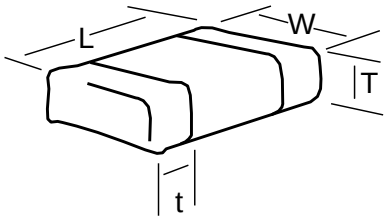
MSL 1
Pb Free
260°C

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	H	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	19,272,129	26,703,909	34,135,689
-50	83.35	21.45	-7.32	13,852,669	18,336,339	22,820,009
-45	57.92	18.44	-7.09	10,010,508	12,743,279	15,476,050
-40	40.72	15.77	-6.87	7,277,671	8,959,315	10,640,958
-35	28.95	13.39	-6.66	5,325,204	6,369,389	7,413,574
-30	20.80	11.29	-6.45	3,922,923	4,576,820	5,230,717
-25	15.10	9.42	-6.26	2,909,937	3,322,731	3,735,526
-20	11.07	7.78	-6.07	2,173,651	2,436,252	2,698,852
-15	8.197	6.33	-5.89	1,635,059	1,803,360	1,971,661
-10	6.123	5.07	-5.71	1,238,504	1,347,165	1,455,825
-5	4.615	3.96	-5.54	944,605	1,015,285	1,085,966
0	3.508	3.00	-5.38	725,350	771,689	818,028
5	2.688	2.18	-5.22	560,710	591,353	621,996
10	2.076	1.48	-5.07	436,277	456,741	477,205
15	1.616	0.89	-4.92	341,632	355,457	369,282
20	1.267	0.40	-4.78	269,189	278,661	288,133
25	1.000	0.00	-4.64	213,400	220,000	226,600
30	0.7949	0.38	-4.51	168,951	174,870	180,788
35	0.6359	0.82	-4.38	134,561	139,909	145,257
40	0.5120	1.31	-4.26	107,793	112,645	117,498
45	0.4148	1.84	-4.14	86,834	91,247	95,659
50	0.3379	2.40	-4.03	70,332	74,347	78,363
55	0.2769	3.00	-3.92	57,265	60,921	64,576
60	0.2281	3.63	-3.81	46,864	50,192	53,519
65	0.1890	4.28	-3.71	38,541	41,570	44,598
70	0.1573	4.96	-3.61	31,848	34,604	37,360
75	0.1316	5.66	-3.52	26,439	28,947	31,454
80	0.1106	6.38	-3.42	22,046	24,329	26,611
85	0.0934	7.11	-3.34	18,463	20,541	22,618
90	0.0792	7.86	-3.25	15,527	17,419	19,311
95	0.0674	8.62	-3.17	13,111	14,835	16,558
100	0.0577	9.39	-3.09	11,114	12,686	14,257
105	0.0495	10.16	-3.01	9,457.4	10,891	12,325
110	0.0427	10.95	-2.93	8,077.0	9,386.2	10,695
115	0.0369	11.74	-2.86	6,922.7	8,119.2	9,315.7
120	0.0320	12.53	-2.79	5,953.7	7,048.4	8,143.0
125	0.0279	13.33	-2.72	5,137.4	6,139.9	7,142.4
130	0.0244	14.13	-2.66	4,447.4	5,366.5	6,285.6
135	0.0214	14.93	-2.59	3,862.1	4,705.7	5,549.3
140	0.0188	15.73	-2.53	3,363.9	4,139.1	4,914.4
145	0.0166	16.53	-2.47	2,938.6	3,651.9	4,365.1
150	0.0147	17.33	-2.42	2,574.4	3,231.4	3,888.3