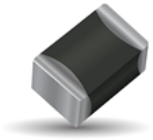
NB20M00333HBA

(1206, 33 kOhm ±3%, 3950K, 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	33 kOhm
Tolerance on Resistance (25°C)	±3%
B 25/85	3950K±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

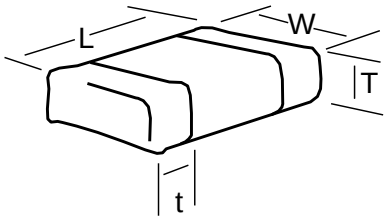
MSL 1
Pb Free
260°C

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	M0	0333	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

M0 (B25/85 = 3950K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3925 K	3944 K	3950 K	3958 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	99.59	15.64	-7.42	2,673,950	3,286,477	3,899,004
-50	68.97	14.25	-7.16	1,883,504	2,276,156	2,668,808
-45	48.40	12.94	-6.91	1,342,500	1,597,038	1,851,577
-40	34.38	11.69	-6.67	967,805	1,134,518	1,301,231
-35	24.71	10.51	-6.45	705,320	815,540	925,760
-30	17.97	9.39	-6.23	519,418	592,906	666,393
-25	13.20	8.33	-6.02	386,362	435,725	485,089
-20	9.804	7.31	-5.82	290,162	323,534	356,906
-15	7.352	6.35	-5.63	219,931	242,611	265,290
-10	5.565	5.43	-5.45	168,177	183,652	199,127
-5	4.251	4.55	-5.28	129,697	140,282	150,867
0	3.275	3.70	-5.11	100,838	108,084	115,329
5	2.544	2.90	-4.95	79,014	83,967	88,920
10	1.992	2.13	-4.80	62,379	65,751	69,122
15	1.572	1.39	-4.65	49,602	51,879	54,155
20	1.249	0.68	-4.51	39,715	41,232	42,750
25	1.000	0.00	-4.38	32,010	33,000	33,990
30	0.8057	0.66	-4.25	25,616	26,589	27,561
35	0.6534	1.30	-4.12	20,634	21,561	22,488
40	0.5331	1.92	-4.00	16,726	17,592	18,458
45	0.4376	2.53	-3.89	13,641	14,439	15,238
50	0.3612	3.12	-3.77	11,189	11,919	12,649
55	0.2998	3.70	-3.67	9,229.5	9,892.3	10,555
60	0.2501	4.26	-3.57	7,654.1	8,253.5	8,852.9
65	0.2097	4.81	-3.47	6,380.4	6,921.0	7,461.7
70	0.1767	5.35	-3.37	5,345.1	5,832.0	6,318.8
75	0.1496	5.87	-3.28	4,499.3	4,937.2	5,375.2
80	0.1272	6.38	-3.19	3,804.7	4,198.6	4,592.5
85	0.1087	6.88	-3.11	3,231.7	3,586.0	3,940.3
90	0.0932	7.37	-3.03	2,756.7	3,075.5	3,394.4
95	0.0803	7.84	-2.95	2,361.2	2,648.4	2,935.5
100	0.0694	8.31	-2.87	2,030.5	2,289.4	2,548.2
105	0.0602	8.76	-2.80	1,752.8	1,986.4	2,220.1
110	0.0524	9.21	-2.73	1,518.6	1,729.8	1,940.9
115	0.0458	9.64	-2.66	1,320.5	1,511.5	1,702.6
120	0.0402	10.07	-2.60	1,152.1	1,325.2	1,498.4
125	0.0353	10.48	-2.53	1,008.5	1,165.7	1,322.8
130	0.0312	10.89	-2.47	885.7	1,028.5	1,171.4
135	0.0276	11.29	-2.41	780.2	910.3	1,040.3
140	0.0245	11.68	-2.36	689.4	807.9	926.5
145	0.0218	12.06	-2.30	610.9	719.1	827.4
150	0.0194	12.43	-2.25	542.8	641.8	740.9