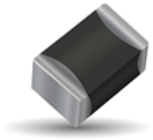
NB20M00333MBA

(1206, 33 kOhm ±20%, 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)	±20%
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

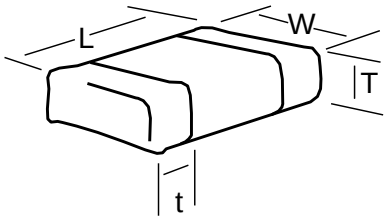
MSL 1
Pb Free 260°C

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	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

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	2,115,249	3,286,477	4,457,705
-50	68.97	14.25	-7.16	1,496,558	2,276,156	3,055,754
-45	48.40	12.94	-6.91	1,071,003	1,597,038	2,123,073
-40	34.38	11.69	-6.67	774,936	1,134,518	1,494,100
-35	24.71	10.51	-6.45	566,678	815,540	1,064,402
-30	17.97	9.39	-6.23	418,624	592,906	767,187
-25	13.20	8.33	-6.02	312,288	435,725	559,162
-20	9.804	7.31	-5.82	235,161	323,534	411,907
-15	7.352	6.35	-5.63	178,687	242,611	306,534
-10	5.565	5.43	-5.45	136,957	183,652	230,348
-5	4.251	4.55	-5.28	105,849	140,282	174,715
0	3.275	3.70	-5.11	82,464	108,084	133,704
5	2.544	2.90	-4.95	64,740	83,967	103,195
10	1.992	2.13	-4.80	51,202	65,751	80,300
15	1.572	1.39	-4.65	40,782	51,879	62,975
20	1.249	0.68	-4.51	32,705	41,232	49,759
25	1.000	0.00	-4.38	26,400	33,000	39,600
30	0.8057	0.66	-4.25	21,096	26,589	32,081
35	0.6534	1.30	-4.12	16,969	21,561	26,153
40	0.5331	1.92	-4.00	13,736	17,592	21,449
45	0.4376	2.53	-3.89	11,186	14,439	17,692
50	0.3612	3.12	-3.77	9,163.0	11,919	14,675
55	0.2998	3.70	-3.67	7,547.8	9,892.3	12,237
60	0.2501	4.26	-3.57	6,251.0	8,253.5	10,256
65	0.2097	4.81	-3.47	5,203.8	6,921.0	8,638.3
70	0.1767	5.35	-3.37	4,353.7	5,832.0	7,310.2
75	0.1496	5.87	-3.28	3,659.9	4,937.2	6,214.6
80	0.1272	6.38	-3.19	3,091.0	4,198.6	5,306.3
85	0.1087	6.88	-3.11	2,622.1	3,586.0	4,549.9
90	0.0932	7.37	-3.03	2,233.9	3,075.5	3,917.2
95	0.0803	7.84	-2.95	1,911.0	2,648.4	3,385.8
100	0.0694	8.31	-2.87	1,641.3	2,289.4	2,937.4
105	0.0602	8.76	-2.80	1,415.1	1,986.4	2,557.8
110	0.0524	9.21	-2.73	1,224.6	1,729.8	2,235.0
115	0.0458	9.64	-2.66	1,063.5	1,511.5	1,959.6
120	0.0402	10.07	-2.60	926.8	1,325.2	1,723.7
125	0.0353	10.48	-2.53	810.4	1,165.7	1,521.0
130	0.0312	10.89	-2.47	710.8	1,028.5	1,346.2
135	0.0276	11.29	-2.41	625.5	910.3	1,195.0
140	0.0245	11.68	-2.36	552.0	807.9	1,063.9
145	0.0218	12.06	-2.30	488.6	719.1	949.7
150	0.0194	12.43	-2.25	433.7	641.8	850.0