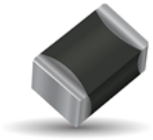
NB20M00473MBA

(1206, 47 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	47 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

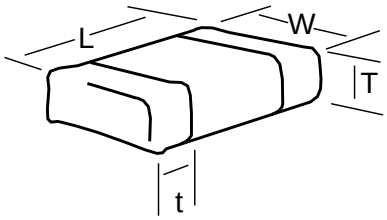
MSL 1
Pb Free 260°C

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	0473	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	3,012,627	4,680,740	6,348,853
-50	68.97	14.25	-7.16	2,131,461	3,241,798	4,352,135
-45	48.40	12.94	-6.91	1,525,368	2,274,570	3,023,771
-40	34.38	11.69	-6.67	1,103,697	1,615,829	2,127,960
-35	24.71	10.51	-6.45	807,087	1,161,527	1,515,967
-30	17.97	9.39	-6.23	596,222	844,441	1,092,661
-25	13.20	8.33	-6.02	444,774	620,579	796,383
-20	9.804	7.31	-5.82	334,927	460,791	586,655
-15	7.352	6.35	-5.63	254,494	345,536	436,579
-10	5.565	5.43	-5.45	195,059	261,565	328,071
-5	4.251	4.55	-5.28	150,755	199,796	248,836
0	3.275	3.70	-5.11	117,448	153,937	190,426
5	2.544	2.90	-4.95	92,205	119,590	146,974
10	1.992	2.13	-4.80	72,923	93,645	114,366
15	1.572	1.39	-4.65	58,084	73,888	89,691
20	1.249	0.68	-4.51	46,580	58,725	70,869
25	1.000	0.00	-4.38	37,600	47,000	56,400
30	0.8057	0.66	-4.25	30,046	37,869	45,692
35	0.6534	1.30	-4.12	24,168	30,708	37,249
40	0.5331	1.92	-4.00	19,563	25,056	30,548
45	0.4376	2.53	-3.89	15,932	20,565	25,198
50	0.3612	3.12	-3.77	13,050	16,975	20,900
55	0.2998	3.70	-3.67	10,750	14,089	17,428
60	0.2501	4.26	-3.57	8,902.9	11,755	14,607
65	0.2097	4.81	-3.47	7,411.5	9,857.2	12,303
70	0.1767	5.35	-3.37	6,200.7	8,306.1	10,412
75	0.1496	5.87	-3.28	5,212.6	7,031.8	8,851.0
80	0.1272	6.38	-3.19	4,402.3	5,979.9	7,557.5
85	0.1087	6.88	-3.11	3,734.5	5,107.3	6,480.2
90	0.0932	7.37	-3.03	3,181.6	4,380.3	5,579.1
95	0.0803	7.84	-2.95	2,721.7	3,771.9	4,822.1
100	0.0694	8.31	-2.87	2,337.6	3,260.6	4,183.6
105	0.0602	8.76	-2.80	2,015.4	2,829.2	3,642.9
110	0.0524	9.21	-2.73	1,744.1	2,463.6	3,183.2
115	0.0458	9.64	-2.66	1,514.7	2,152.8	2,790.9
120	0.0402	10.07	-2.60	1,320.0	1,887.5	2,455.0
125	0.0353	10.48	-2.53	1,154.2	1,660.2	2,166.3
130	0.0312	10.89	-2.47	1,012.4	1,464.9	1,917.4
135	0.0276	11.29	-2.41	890.8	1,296.4	1,702.0
140	0.0245	11.68	-2.36	786.2	1,150.7	1,515.2
145	0.0218	12.06	-2.30	695.9	1,024.2	1,352.6
150	0.0194	12.43	-2.25	617.7	914.1	1,210.6