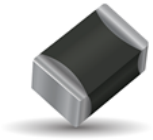
NB12M00183MBD

(0805, 18 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	0805
Operating temperature	-55°C to +150°C
Resistance	18 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	3950K±3%
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 s
Termination	Ni barrier/100%Sn (for Pb free soldering)

RoHS COMPLIANT

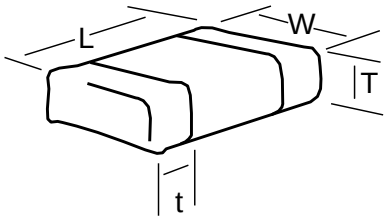
MSL 1
Pb Free
260°C

AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.0±0.3	1.25±0.2	1.3 max	0.2 min
	(0.079±0.012)	(0.049±0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB — **Type**
NB = Ni/Sn Term for lead free soldering

12 — **Size**
12 = 0805

M0 — **Material Code**
See Datasheet

0183 — **Resistance (Ohm)**
2 Sig. Digits + Number of Zeros

M — **Tolerance**
H = ±3%*
J = ±5%
K = ±10%
M = ±20%

* For selected PNs

BD — **Suffix: Packaging**
BB = Cardboard tape (180mm reel, 4,000 pcs/reel)
BF = Cardboard tape (180mm reel, 2,000 pcs/reel)
BD = Cardboard 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	1,153,772	1,792,624	2,431,475
-50	68.97	14.25	-7.16	816,304	1,241,540	1,666,775
-45	48.40	12.94	-6.91	584,184	871,112	1,158,040
-40	34.38	11.69	-6.67	422,693	618,828	814,963
-35	24.71	10.51	-6.45	309,097	444,840	580,583
-30	17.97	9.39	-6.23	228,340	323,403	418,466
-25	13.20	8.33	-6.02	170,339	237,668	304,998
-20	9.804	7.31	-5.82	128,270	176,473	224,676
-15	7.352	6.35	-5.63	97,466	132,333	167,200
-10	5.565	5.43	-5.45	74,704	100,174	125,644
-5	4.251	4.55	-5.28	57,736	76,517	95,299
0	3.275	3.70	-5.11	44,980	58,955	72,929
5	2.544	2.90	-4.95	35,313	45,800	56,288
10	1.992	2.13	-4.80	27,928	35,864	43,800
15	1.572	1.39	-4.65	22,245	28,297	34,350
20	1.249	0.68	-4.51	17,839	22,490	27,141
25	1.000	0.00	-4.38	14,400	18,000	21,600
30	0.8057	0.66	-4.25	11,507	14,503	17,499
35	0.6534	1.30	-4.12	9,255.8	11,761	14,265
40	0.5331	1.92	-4.00	7,492.2	9,595.8	11,699
45	0.4376	2.53	-3.89	6,101.5	7,875.9	9,650.4
50	0.3612	3.12	-3.77	4,998.0	6,501.2	8,004.4
55	0.2998	3.70	-3.67	4,117.0	5,395.8	6,674.6
60	0.2501	4.26	-3.57	3,409.6	4,501.9	5,594.2
65	0.2097	4.81	-3.47	2,838.4	3,775.1	4,711.8
70	0.1767	5.35	-3.37	2,374.7	3,181.1	3,987.4
75	0.1496	5.87	-3.28	1,996.3	2,693.0	3,389.8
80	0.1272	6.38	-3.19	1,686.0	2,290.2	2,894.3
85	0.1087	6.88	-3.11	1,430.2	1,956.0	2,481.8
90	0.0932	7.37	-3.03	1,218.5	1,677.6	2,136.7
95	0.0803	7.84	-2.95	1,042.4	1,444.6	1,846.8
100	0.0694	8.31	-2.87	895.3	1,248.7	1,602.2
105	0.0602	8.76	-2.80	771.9	1,083.5	1,395.1
110	0.0524	9.21	-2.73	668.0	943.5	1,219.1
115	0.0458	9.64	-2.66	580.1	824.5	1,068.9
120	0.0402	10.07	-2.60	505.5	722.9	940.2
125	0.0353	10.48	-2.53	442.0	635.8	829.6
130	0.0312	10.89	-2.47	387.7	561.0	734.3
135	0.0276	11.29	-2.41	341.2	496.5	651.8
140	0.0245	11.68	-2.36	301.1	440.7	580.3
145	0.0218	12.06	-2.30	266.5	392.3	518.0
150	0.0194	12.43	-2.25	236.6	350.1	463.6