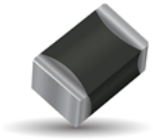
NB12MC0181MBD

(0805, 180 Ohm ±20%, 3910K, 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	180 Ohm
Tolerance on Resistance (25°C)	±20%
B 25/85	3910K±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

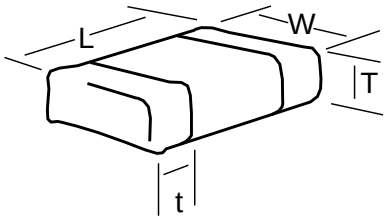
MSL 1
Pb Free
260°C

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

MC — **Material Code**
See Datasheet

0181 — **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

MC (B25/85 = 3910K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3887 K	3904 K	3910 K	3917 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	100.6	23.00	-7.56	10,322	18,108	25,894
-50	69.29	19.90	-7.27	7,495.8	12,472	17,449
-45	48.40	17.10	-7.00	5,479.8	8,712.0	11,944
-40	34.27	14.60	-6.75	4,034.3	6,168.6	8,302.9
-35	24.57	12.40	-6.50	2,989.7	4,422.6	5,855.5
-30	17.83	10.50	-6.27	2,230.5	3,209.4	4,188.3
-25	13.09	8.70	-6.05	1,680.0	2,356.2	3,032.4
-20	9.710	7.20	-5.84	1,272.4	1,747.8	2,223.2
-15	7.282	5.90	-5.64	971.3	1,310.8	1,650.2
-10	5.514	4.70	-5.45	747.4	992.5	1,237.7
-5	4.215	3.70	-5.27	578.9	758.7	938.5
0	3.250	2.80	-5.10	451.6	585.0	718.4
5	2.528	2.00	-4.93	354.9	455.0	555.1
10	1.982	1.40	-4.77	280.4	356.8	433.1
15	1.567	0.80	-4.62	223.4	282.1	340.7
20	1.247	0.40	-4.48	178.7	224.5	270.2
25	1.000	0.00	-4.34	144.0	180.0	216.0
30	0.8072	0.40	-4.21	115.7	145.3	174.9
35	0.6559	0.80	-4.08	93.5	118.1	142.6
40	0.5362	1.20	-3.96	76.1	96.5	117.0
45	0.4410	1.70	-3.85	62.2	79.4	96.6
50	0.3647	2.20	-3.74	51.1	65.6	80.2
55	0.3033	2.80	-3.63	42.1	54.6	67.0
60	0.2535	3.40	-3.53	35.0	45.6	56.3
65	0.2130	4.00	-3.43	29.1	38.3	47.5
70	0.1798	4.60	-3.34	24.4	32.4	40.3
75	0.1525	5.20	-3.25	20.5	27.5	34.4
80	0.1300	5.90	-3.16	17.3	23.4	29.5
85	0.1112	6.60	-3.08	14.7	20.0	25.3
90	0.0955	7.30	-2.99	12.5	17.2	21.9
95	0.0824	8.00	-2.92	10.7	14.8	19.0
100	0.0713	8.70	-2.84	9.2	12.8	16.5
105	0.0620	9.40	-2.77	7.9	11.2	14.4
110	0.0541	10.10	-2.70	6.8	9.7	12.7
115	0.0473	10.90	-2.63	5.9	8.5	11.1
120	0.0415	11.60	-2.57	5.1	7.5	9.8
125	0.0366	12.30	-2.51	4.5	6.6	8.7
130	0.0323	13.10	-2.45	3.9	5.8	7.7
135	0.0286	13.80	-2.39	3.4	5.2	6.9
140	0.0254	14.60	-2.33	3.0	4.6	6.2
145	0.0227	15.30	-2.28	2.6	4.1	5.5
150	0.0203	16.10	-2.23	2.3	3.6	5.0