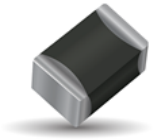
NB12P00184MBD

(0805, 180 kOhm ±20%, 4220K, 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 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	4220K±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

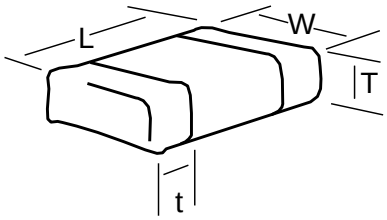
MSL 1
Pb Free
260°C

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	12	P0	0184	M	BD
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NB = Ni/Sn Term for lead free soldering	12 = 0805	See Datasheet	2 Sig. Digits + Number of Zeros	H = ±3%* J = ±5% K = ±10% M = ±20%	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)

* For selected PNs

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

P0 (B25/85 = 4220K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4181 K	4211 K	4220 K	4232 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	121.4	24.83	-7.56	12,053,835	21,848,653	31,643,471
-50	83.35	21.45	-7.32	8,783,584	15,002,459	21,221,334
-45	57.92	18.44	-7.09	6,417,941	10,426,319	14,434,697
-40	40.72	15.77	-6.87	4,708,299	7,330,348	9,952,398
-35	28.95	13.39	-6.66	3,471,061	5,211,318	6,951,576
-30	20.80	11.29	-6.45	2,573,070	3,744,671	4,916,271
-25	15.10	9.42	-6.26	1,918,696	2,718,598	3,518,501
-20	11.07	7.78	-6.07	1,439,582	1,993,297	2,547,012
-15	8.197	6.33	-5.89	1,086,944	1,475,476	1,864,008
-10	6.123	5.07	-5.71	825,943	1,102,226	1,378,508
-5	4.615	3.96	-5.54	631,642	830,688	1,029,735
0	3.508	3.00	-5.38	486,134	631,382	776,631
5	2.688	2.18	-5.22	376,511	483,834	591,158
10	2.076	1.48	-5.07	293,426	373,697	453,969
15	1.616	0.89	-4.92	230,076	290,828	351,581
20	1.267	0.40	-4.78	181,487	227,996	274,504
25	1.000	0.00	-4.64	144,000	180,000	216,000
30	0.7949	0.38	-4.51	113,910	143,075	172,241
35	0.6359	0.82	-4.38	90,635	114,471	138,307
40	0.5120	1.31	-4.26	72,526	92,164	111,802
45	0.4148	1.84	-4.14	58,355	74,656	90,958
50	0.3379	2.40	-4.03	47,203	60,830	74,456
55	0.2769	3.00	-3.92	38,380	49,844	61,309
60	0.2281	3.63	-3.81	31,362	41,066	50,769
65	0.1890	4.28	-3.71	25,752	34,012	42,271
70	0.1573	4.96	-3.61	21,244	28,312	35,380
75	0.1316	5.66	-3.52	17,606	23,684	29,762
80	0.1106	6.38	-3.42	14,654	19,905	25,156
85	0.0934	7.11	-3.34	12,249	16,806	21,363
90	0.0792	7.86	-3.25	10,281	14,252	18,223
95	0.0674	8.62	-3.17	8,663.9	12,138	15,611
100	0.0577	9.39	-3.09	7,329.1	10,379	13,429
105	0.0495	10.16	-3.01	6,223.0	8,910.9	11,599
110	0.0427	10.95	-2.93	5,302.9	7,679.6	10,056
115	0.0369	11.74	-2.86	4,534.7	6,643.0	8,751.2
120	0.0320	12.53	-2.79	3,890.9	5,766.8	7,642.8
125	0.0279	13.33	-2.72	3,349.4	5,023.6	6,697.8
130	0.0244	14.13	-2.66	2,892.3	4,390.8	5,889.2
135	0.0214	14.93	-2.59	2,505.4	3,850.1	5,194.9
140	0.0188	15.73	-2.53	2,176.6	3,386.6	4,596.6
145	0.0166	16.53	-2.47	1,896.4	2,987.9	4,079.4
150	0.0147	17.33	-2.42	1,656.9	2,643.8	3,630.8