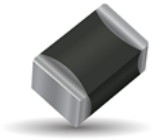
NB12P00124MBD

(0805, 120 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	120 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

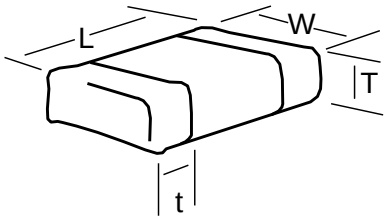
MSL 1
Pb Free
260°C

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	0124	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	8,035,890	14,565,769	21,095,647
-50	83.35	21.45	-7.32	5,855,723	10,001,639	14,147,556
-45	57.92	18.44	-7.09	4,278,627	6,950,879	9,623,131
-40	40.72	15.77	-6.87	3,138,866	4,886,899	6,634,932
-35	28.95	13.39	-6.66	2,314,041	3,474,212	4,634,384
-30	20.80	11.29	-6.45	1,715,380	2,496,447	3,277,514
-25	15.10	9.42	-6.26	1,279,130	1,812,399	2,345,667
-20	11.07	7.78	-6.07	959,721	1,328,865	1,698,008
-15	8.197	6.33	-5.89	724,630	983,651	1,242,672
-10	6.123	5.07	-5.71	550,629	734,817	919,005
-5	4.615	3.96	-5.54	421,094	553,792	686,490
0	3.508	3.00	-5.38	324,089	420,921	517,754
5	2.688	2.18	-5.22	251,007	322,556	394,105
10	2.076	1.48	-5.07	195,617	249,132	302,646
15	1.616	0.89	-4.92	153,384	193,886	234,387
20	1.267	0.40	-4.78	120,991	151,997	183,003
25	1.000	0.00	-4.64	96,000	120,000	144,000
30	0.7949	0.38	-4.51	75,940	95,383	114,827
35	0.6359	0.82	-4.38	60,423	76,314	92,204
40	0.5120	1.31	-4.26	48,351	61,443	74,535
45	0.4148	1.84	-4.14	38,903	49,771	60,639
50	0.3379	2.40	-4.03	31,469	40,553	49,637
55	0.2769	3.00	-3.92	25,587	33,229	40,872
60	0.2281	3.63	-3.81	20,908	27,377	33,846
65	0.1890	4.28	-3.71	17,168	22,674	28,181
70	0.1573	4.96	-3.61	14,163	18,875	23,587
75	0.1316	5.66	-3.52	11,737	15,789	19,841
80	0.1106	6.38	-3.42	9,769.4	13,270	16,771
85	0.0934	7.11	-3.34	8,166.2	11,204	14,242
90	0.0792	7.86	-3.25	6,854.2	9,501.4	12,149
95	0.0674	8.62	-3.17	5,775.9	8,091.7	10,407
100	0.0577	9.39	-3.09	4,886.1	6,919.5	8,953.0
105	0.0495	10.16	-3.01	4,148.7	5,940.6	7,732.5
110	0.0427	10.95	-2.93	3,535.3	5,119.7	6,704.2
115	0.0369	11.74	-2.86	3,023.1	4,428.6	5,834.2
120	0.0320	12.53	-2.79	2,593.9	3,844.6	5,095.2
125	0.0279	13.33	-2.72	2,232.9	3,349.1	4,465.2
130	0.0244	14.13	-2.66	1,928.2	2,927.2	3,926.1
135	0.0214	14.93	-2.59	1,670.2	2,566.7	3,463.2
140	0.0188	15.73	-2.53	1,451.1	2,257.7	3,064.4
145	0.0166	16.53	-2.47	1,264.3	1,991.9	2,719.6
150	0.0147	17.33	-2.42	1,104.6	1,762.6	2,420.6