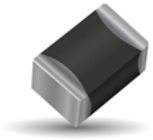
NB12N50683MBB

(0805, 68 kOhm ±20%, 4160K, 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	68 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	4160K±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

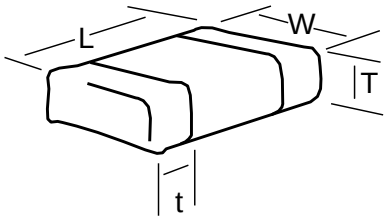
MSL 1
Pb Free
260°C

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	N5	0683	M	BB
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

N5 (B25/85 = 4160K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4124 K	4151 K	4160 K	4171 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	115.8	16.32	-7.52	5,016,223	7,876,875	10,737,526
-50	79.72	14.10	-7.28	3,572,729	5,421,218	7,269,707
-45	55.54	12.12	-7.04	2,563,751	3,776,937	4,990,123
-40	39.15	10.36	-6.82	1,853,991	2,662,366	3,470,740
-35	27.91	8.80	-6.61	1,351,283	1,897,914	2,444,545
-30	20.11	7.42	-6.40	992,671	1,367,641	1,742,610
-25	14.64	6.19	-6.20	734,970	995,793	1,256,616
-20	10.77	5.11	-6.01	548,408	732,303	916,198
-15	7.996	4.16	-5.83	412,344	543,713	675,082
-10	5.991	3.33	-5.65	312,374	407,421	502,468
-5	4.529	2.60	-5.48	238,386	308,006	377,626
0	3.454	1.97	-5.31	183,234	234,838	286,443
5	2.655	1.43	-5.16	141,830	180,523	219,216
10	2.057	0.97	-5.00	110,533	139,867	169,201
15	1.606	0.58	-4.86	86,715	109,191	131,667
20	1.263	0.26	-4.72	68,468	85,867	103,265
25	1.000	0.00	-4.58	54,400	68,000	81,600
30	0.7973	0.25	-4.45	43,236	54,216	65,196
35	0.6398	0.54	-4.32	34,571	43,508	52,445
40	0.5167	0.86	-4.20	27,806	35,135	42,463
45	0.4198	1.21	-4.09	22,491	28,544	34,597
50	0.3430	1.58	-3.97	18,292	23,325	28,358
55	0.2819	1.97	-3.86	14,956	19,168	23,379
60	0.2329	2.39	-3.76	12,291	15,836	19,381
65	0.1934	2.82	-3.66	10,151	13,152	16,153
70	0.1614	3.26	-3.56	8,424.4	10,978	13,532
75	0.1354	3.72	-3.46	7,023.5	9,207.7	11,392
80	0.1141	4.19	-3.37	5,881.9	7,759.0	9,636.1
85	0.0966	4.67	-3.29	4,947.1	6,567.7	8,188.3
90	0.0821	5.17	-3.20	4,178.4	5,583.5	6,988.7
95	0.0701	5.66	-3.12	3,543.4	4,766.8	5,990.1
100	0.0601	6.17	-3.04	3,016.8	4,086.0	5,155.3
105	0.0517	6.68	-2.96	2,578.1	3,516.2	4,454.3
110	0.0447	7.19	-2.89	2,211.3	3,037.3	3,863.2
115	0.0387	7.71	-2.82	1,903.4	2,633.1	3,362.9
120	0.0337	8.23	-2.75	1,644.1	2,290.9	2,937.7
125	0.0294	8.76	-2.68	1,424.7	1,999.9	2,575.0
130	0.0258	9.28	-2.62	1,238.7	1,751.6	2,264.5
135	0.0226	9.81	-2.55	1,080.3	1,539.0	1,997.8
140	0.0199	10.34	-2.49	944.9	1,356.4	1,767.9
145	0.0176	10.86	-2.44	829.0	1,199.1	1,569.1
150	0.0156	11.39	-2.38	729.3	1,063.0	1,396.7