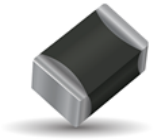
NB12N50683KBB

(0805, 68 kOhm ±10%, 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)	±10%
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

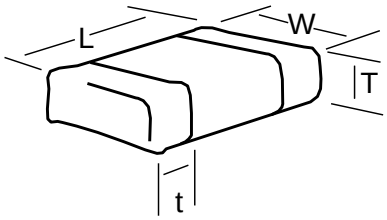
MSL 1
Pb Free
260°C

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	K	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	5,803,911	7,876,875	9,949,839
-50	79.72	14.10	-7.28	4,114,851	5,421,218	6,727,585
-45	55.54	12.12	-7.04	2,941,445	3,776,937	4,612,430
-40	39.15	10.36	-6.82	2,120,228	2,662,366	3,204,504
-35	27.91	8.80	-6.61	1,541,075	1,897,914	2,254,753
-30	20.11	7.42	-6.40	1,129,435	1,367,641	1,605,846
-25	14.64	6.19	-6.20	834,549	995,793	1,157,036
-20	10.77	5.11	-6.01	621,639	732,303	842,968
-15	7.996	4.16	-5.83	466,715	543,713	620,710
-10	5.991	3.33	-5.65	353,116	407,421	461,726
-5	4.529	2.60	-5.48	269,187	308,006	346,825
0	3.454	1.97	-5.31	206,717	234,838	262,959
5	2.655	1.43	-5.16	159,882	180,523	201,164
10	2.057	0.97	-5.00	124,520	139,867	155,214
15	1.606	0.58	-4.86	97,634	109,191	120,748
20	1.263	0.26	-4.72	77,055	85,867	94,678
25	1.000	0.00	-4.58	61,200	68,000	74,800
30	0.7973	0.25	-4.45	48,657	54,216	59,775
35	0.6398	0.54	-4.32	38,922	43,508	48,094
40	0.5167	0.86	-4.20	31,319	35,135	38,950
45	0.4198	1.21	-4.09	25,346	28,544	31,743
50	0.3430	1.58	-3.97	20,625	23,325	26,026
55	0.2819	1.97	-3.86	16,873	19,168	21,462
60	0.2329	2.39	-3.76	13,875	15,836	17,798
65	0.1934	2.82	-3.66	11,467	13,152	14,838
70	0.1614	3.26	-3.56	9,522.2	10,978	12,434
75	0.1354	3.72	-3.46	7,944.3	9,207.7	10,471
80	0.1141	4.19	-3.37	6,657.8	7,759.0	8,860.2
85	0.0966	4.67	-3.29	5,603.9	6,567.7	7,531.5
90	0.0821	5.17	-3.20	4,736.8	5,583.5	6,430.3
95	0.0701	5.66	-3.12	4,020.1	4,766.8	5,513.4
100	0.0601	6.17	-3.04	3,425.4	4,086.0	4,746.7
105	0.0517	6.68	-2.96	2,929.7	3,516.2	4,102.6
110	0.0447	7.19	-2.89	2,515.0	3,037.3	3,559.5
115	0.0387	7.71	-2.82	2,166.7	2,633.1	3,099.6
120	0.0337	8.23	-2.75	1,873.1	2,290.9	2,708.6
125	0.0294	8.76	-2.68	1,624.7	1,999.9	2,375.0
130	0.0258	9.28	-2.62	1,413.8	1,751.6	2,089.4
135	0.0226	9.81	-2.55	1,234.2	1,539.0	1,843.9
140	0.0199	10.34	-2.49	1,080.6	1,356.4	1,632.3
145	0.0176	10.86	-2.44	948.9	1,199.1	1,449.2
150	0.0156	11.39	-2.38	835.6	1,063.0	1,290.4