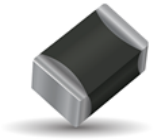
NB12KC0680MBD

(0805, 68 Ohm ±20%, 3470K, 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 Ohm
Tolerance on Resistance (25°C)	±20%
B 25/85	3470K±5%
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

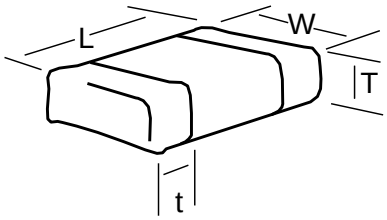
MSL 1
Pb Free
260°C

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	KC	0680	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

KC (B25/85 = 3470K±5%)

B25/50	B25/75	B25/85	B25/100	B Tol
3454 K	3466 K	3470 K	3475 K	±5%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	60.08	34.00	-7.00	1,879.3	4,085.4	6,291.6
-50	43.19	29.40	-6.71	1,486.1	2,936.9	4,387.8
-45	31.42	25.30	-6.44	1,168.7	2,136.6	3,104.4
-40	23.13	21.60	-6.18	918.5	1,572.8	2,227.1
-35	17.22	18.40	-5.94	721.3	1,171.0	1,620.6
-30	12.95	15.50	-5.71	568.0	880.6	1,193.2
-25	9.842	12.90	-5.49	449.1	669.3	889.4
-20	7.550	10.70	-5.29	355.8	513.4	671.0
-15	5.845	8.70	-5.10	283.4	397.5	511.5
-10	4.564	6.90	-4.91	226.9	310.4	393.8
-5	3.594	5.40	-4.74	182.3	244.4	306.5
0	2.853	4.10	-4.58	147.2	194.0	240.8
5	2.281	3.00	-4.42	119.4	155.1	190.8
10	1.838	2.00	-4.27	97.5	125.0	152.5
15	1.491	1.20	-4.13	79.9	101.4	122.9
20	1.217	0.50	-4.00	65.8	82.8	99.7
25	1.000	0.00	-3.90	54.4	68.0	81.6
30	0.8267	0.50	-3.74	44.7	56.2	67.7
35	0.6873	1.10	-3.63	36.9	46.7	56.6
40	0.5747	1.80	-3.52	30.6	39.1	47.6
45	0.4830	2.50	-3.41	25.5	32.8	40.2
50	0.4081	3.30	-3.31	21.3	27.8	34.2
55	0.3465	4.10	-3.21	17.9	23.6	29.2
60	0.2955	5.00	-3.12	15.1	20.1	25.1
65	0.2532	5.90	-3.03	12.8	17.2	21.7
70	0.2179	6.80	-2.94	10.8	14.8	18.8
75	0.1883	7.80	-2.86	9.2	12.8	16.4
80	0.1634	8.70	-2.78	7.9	11.1	14.3
85	0.1423	9.70	-2.71	6.8	9.7	12.6
90	0.1244	10.80	-2.63	5.9	8.5	11.1
95	0.1092	11.80	-2.56	5.1	7.4	9.8
100	0.0961	12.90	-2.50	4.4	6.5	8.7
105	0.0849	13.90	-2.43	3.8	5.8	7.7
110	0.0752	15.00	-2.37	3.3	5.1	6.9
115	0.0668	16.10	-2.31	2.9	4.5	6.2
120	0.0596	17.20	-2.25	2.5	4.1	5.6
125	0.0533	18.30	-2.20	2.2	3.6	5.0
130	0.0477	19.40	-2.14	2.0	3.2	4.5
135	0.0429	20.50	-2.09	1.7	2.9	4.1
140	0.0387	21.60	-2.04	1.5	2.6	3.7
145	0.0349	22.70	-1.99	1.4	2.4	3.4
150	0.0316	23.80	-1.95	1.2	2.2	3.1