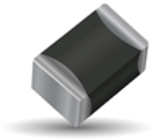
NB20N00823KBC

(1206, 82 kOhm ±10%, 4080K, 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	1206
Operating temperature	-55°C to +150°C
Resistance	82 kOhm
Tolerance on Resistance (25°C)	±10%
B 25/85	4080K±3%
Maximum dissipation at 25°C	0.24 W
Thermal dissipation factor	4 mW/°C
Thermal time constant	7 s
Termination	Ni barrier/100%Sn (for Pb free soldering)

RoHS COMPLIANT

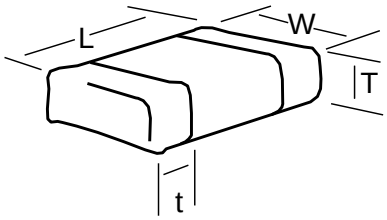
MSL 1
Pb Free 260°C

AEC-Q200 based qualification

Dimensions WWWW

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
1206	3.2±0.4	1.6±0.25	1.5 max	0.2 min
	(0.126±0.016)	(0.063±0.01)	(0.059) max	(0.008) min



How to Order (Packaging options)

NB	20	N0	0823	K	BC
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NB = Ni/Sn Term for lead free soldering	20 = 1206	See Datasheet	2 Sig. Digits + Number of Zeros	H = ±3%* J = ±5% K = ±10% M = ±20%	BA = Plastic tape (180mm reel, 3,000 pcs/reel) BE = Plastic tape (180mm reel, 1,500 pcs/reel) BC = Plastic 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

N0 (B25/85 = 4080K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4049 K	4072 K	4080 K	4090 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	110.1	24.01	-7.50	5,957,876	9,027,982	12,098,087
-50	75.89	20.74	-7.25	4,309,957	6,222,928	8,135,898
-45	52.97	17.83	-7.01	3,134,752	4,343,741	5,552,730
-40	37.42	15.25	-6.78	2,294,010	3,068,771	3,843,531
-35	26.75	12.95	-6.56	1,689,858	2,193,181	2,696,505
-30	19.33	10.91	-6.35	1,253,403	1,584,834	1,916,266
-25	14.11	9.11	-6.14	936,232	1,157,424	1,378,616
-20	10.41	7.52	-5.95	704,294	853,905	1,003,516
-15	7.758	6.12	-5.76	533,581	636,143	738,706
-10	5.834	4.90	-5.58	407,095	478,361	549,626
-5	4.426	3.83	-5.41	312,753	362,950	413,147
0	3.387	2.91	-5.24	241,916	277,762	313,607
5	2.614	2.11	-5.08	188,376	214,330	240,284
10	2.033	1.43	-4.93	147,644	166,700	185,756
15	1.593	0.86	-4.78	116,457	130,645	144,833
20	1.258	0.39	-4.64	92,428	103,140	113,852
25	1.000	0.00	-4.51	73,800	82,000	90,200
30	0.8004	0.37	-4.37	58,827	65,635	72,442
35	0.6449	0.80	-4.25	47,170	52,878	58,586
40	0.5228	1.26	-4.13	38,038	42,867	47,696
45	0.4264	1.77	-4.01	30,845	34,961	39,078
50	0.3497	2.32	-3.90	25,145	28,678	32,212
55	0.2885	2.90	-3.79	20,604	23,656	26,708
60	0.2392	3.51	-3.68	16,968	19,618	22,268
65	0.1994	4.14	-3.58	14,040	16,353	18,666
70	0.1671	4.80	-3.49	11,672	13,699	15,727
75	0.1406	5.48	-3.39	9,746.9	11,531	13,316
80	0.1189	6.17	-3.30	8,174.6	9,751.3	11,328
85	0.1010	6.88	-3.22	6,884.8	8,282.7	9,680.7
90	0.0862	7.60	-3.13	5,822.0	7,065.5	8,309.0
95	0.0738	8.33	-3.05	4,942.6	6,052.1	7,161.6
100	0.0635	9.08	-2.97	4,211.9	5,204.7	6,197.6
105	0.0548	9.83	-2.90	3,602.4	4,493.3	5,384.1
110	0.0475	10.58	-2.83	3,092.0	3,893.4	4,694.9
115	0.0413	11.35	-2.76	2,663.0	3,385.8	4,108.6
120	0.0360	12.11	-2.69	2,301.2	2,954.5	3,607.9
125	0.0315	12.89	-2.62	1,994.8	2,586.8	3,178.8
130	0.0277	13.66	-2.56	1,734.7	2,272.2	2,809.8
135	0.0244	14.43	-2.50	1,512.9	2,002.1	2,491.3
140	0.0216	15.21	-2.44	1,323.4	1,769.4	2,215.4
145	0.0191	15.98	-2.38	1,160.8	1,568.3	1,975.8
150	0.0170	16.76	-2.33	1,021.0	1,394.0	1,767.0