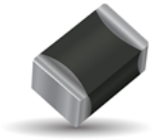
NB20N00823HBC

(1206, 82 kOhm ±3%, 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)	±3%
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

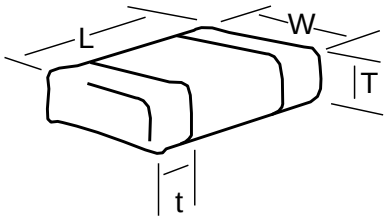
MSL 1
Pb Free
260°C

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	H	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% * For selected PNs	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)

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	6,589,835	9,027,982	11,466,129
-50	75.89	20.74	-7.25	4,745,562	6,222,928	7,700,294
-45	52.97	17.83	-7.01	3,438,814	4,343,741	5,248,668
-40	37.42	15.25	-6.78	2,508,824	3,068,771	3,628,717
-35	26.75	12.95	-6.56	1,843,381	2,193,181	2,542,982
-30	19.33	10.91	-6.35	1,364,341	1,584,834	1,805,327
-25	14.11	9.11	-6.14	1,017,251	1,157,424	1,297,596
-20	10.41	7.52	-5.95	764,068	853,905	943,743
-15	7.758	6.12	-5.76	578,111	636,143	694,176
-10	5.834	4.90	-5.58	440,581	478,361	516,141
-5	4.426	3.83	-5.41	338,160	362,950	387,740
0	3.387	2.91	-5.24	261,359	277,762	294,164
5	2.614	2.11	-5.08	203,379	214,330	225,281
10	2.033	1.43	-4.93	159,313	166,700	174,087
15	1.593	0.86	-4.78	125,602	130,645	135,688
20	1.258	0.39	-4.64	99,648	103,140	106,632
25	1.000	0.00	-4.51	79,540	82,000	84,460
30	0.8004	0.37	-4.37	63,422	65,635	67,848
35	0.6449	0.80	-4.25	50,871	52,878	54,885
40	0.5228	1.26	-4.13	41,039	42,867	44,695
45	0.4264	1.77	-4.01	33,292	34,961	36,630
50	0.3497	2.32	-3.90	27,152	28,678	30,204
55	0.2885	2.90	-3.79	22,260	23,656	25,052
60	0.2392	3.51	-3.68	18,341	19,618	20,895
65	0.1994	4.14	-3.58	15,185	16,353	17,521
70	0.1671	4.80	-3.49	12,631	13,699	14,768
75	0.1406	5.48	-3.39	10,554	11,531	12,509
80	0.1189	6.17	-3.30	8,857.2	9,751.3	10,645
85	0.1010	6.88	-3.22	7,464.6	8,282.7	9,100.9
90	0.0862	7.60	-3.13	6,316.6	7,065.5	7,814.4
95	0.0738	8.33	-3.05	5,366.2	6,052.1	6,738.0
100	0.0635	9.08	-2.97	4,576.2	5,204.7	5,833.3
105	0.0548	9.83	-2.90	3,916.9	4,493.3	5,069.6
110	0.0475	10.58	-2.83	3,364.5	3,893.4	4,422.3
115	0.0413	11.35	-2.76	2,900.0	3,385.8	3,871.6
120	0.0360	12.11	-2.69	2,508.0	2,954.5	3,401.1
125	0.0315	12.89	-2.62	2,175.9	2,586.8	2,997.8
130	0.0277	13.66	-2.56	1,893.7	2,272.2	2,650.7
135	0.0244	14.43	-2.50	1,653.1	2,002.1	2,351.1
140	0.0216	15.21	-2.44	1,447.2	1,769.4	2,091.6
145	0.0191	15.98	-2.38	1,270.6	1,568.3	1,866.0
150	0.0170	16.76	-2.33	1,118.6	1,394.0	1,669.4