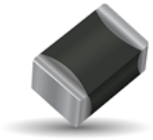
NB20R00684MBA

(1206, 680 kOhm ±20%, 4400K, 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	680 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	4400K±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

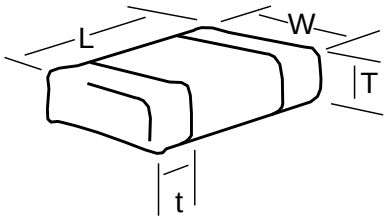
MSL 1
Pb Free
260°C

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	R0	0684	M	BA
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

R0 (B25/85 = 4400K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4326 K	4382 K	4400 K	4423 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	113.9	25.89	-7.13	41,903,032	77,436,961	112,970,889
-50	79.71	22.37	-6.95	31,237,780	54,200,067	77,162,354
-45	56.30	19.23	-6.77	23,267,076	38,287,212	53,307,348
-40	40.13	16.44	-6.60	17,344,603	27,289,084	37,233,565
-35	28.85	13.96	-6.44	12,956,031	19,619,678	26,283,324
-30	20.92	11.77	-6.28	9,706,109	14,225,102	18,744,095
-25	15.29	9.82	-6.12	7,297,315	10,398,678	13,500,041
-20	11.27	8.11	-5.97	5,508,479	7,662,380	9,816,282
-15	8.368	6.60	-5.82	4,176,404	5,690,101	7,203,798
-10	6.261	5.28	-5.68	3,181,166	4,257,538	5,333,911
-5	4.719	4.13	-5.53	2,434,796	3,209,182	3,983,569
0	3.583	3.13	-5.40	1,872,778	2,436,381	2,999,985
5	2.739	2.27	-5.26	1,447,750	1,862,651	2,277,552
10	2.108	1.54	-5.13	1,124,876	1,433,757	1,742,638
15	1.634	0.93	-5.00	878,473	1,110,969	1,343,465
20	1.274	0.42	-4.88	689,546	866,437	1,043,329
25	1.000	0.00	-4.75	544,000	680,000	816,000
30	0.7897	0.40	-4.64	427,419	536,966	646,513
35	0.6273	0.86	-4.52	337,591	426,561	515,531
40	0.5012	1.36	-4.41	268,022	340,836	413,650
45	0.4028	1.91	-4.30	213,869	273,887	333,906
50	0.3255	2.50	-4.19	171,506	221,307	271,109
55	0.2644	3.13	-4.09	138,204	179,785	221,365
60	0.2159	3.78	-3.98	111,899	146,818	181,737
65	0.1772	4.47	-3.89	91,023	120,508	149,993
70	0.1462	5.18	-3.79	74,378	99,403	124,428
75	0.1212	5.90	-3.70	61,047	82,390	103,733
80	0.1009	6.65	-3.60	50,323	68,609	86,894
85	0.0844	7.42	-3.52	41,657	57,393	73,128
90	0.0709	8.20	-3.43	34,626	48,223	61,819
95	0.0598	8.99	-3.35	28,897	40,692	52,488
100	0.0507	9.79	-3.26	24,211	34,481	44,752
105	0.0431	10.60	-3.19	20,361	29,337	38,313
110	0.0369	11.41	-3.11	17,187	25,059	32,930
115	0.0316	12.24	-3.03	14,560	21,486	28,412
120	0.0272	13.06	-2.96	12,377	18,491	24,605
125	0.0235	13.89	-2.89	10,558	15,971	21,385
130	0.0204	14.73	-2.82	9,035.6	13,843	18,651
135	0.0177	15.56	-2.76	7,757.7	12,039	16,321
140	0.0154	16.40	-2.69	6,681.3	10,505	14,329
145	0.0135	17.23	-2.63	5,771.7	9,195.7	12,620
150	0.0119	18.07	-2.57	5,000.7	8,074.6	11,149