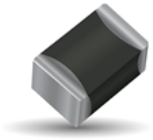
NB20K00103MBE

(1206, 10 kOhm ±20%, 3630K, 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	10 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	3630K±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

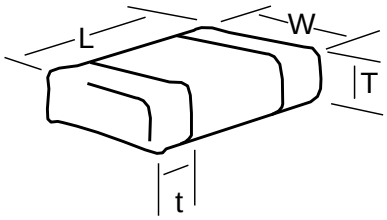
MSL 1
Pb Free 260°C

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	K0	0103	M	BE
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

K0 (B25/85 = 3630K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3581 K	3618 K	3630 K	3646 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	56.27	21.36	-6.25	329,982	562,688	795,395
-50	41.22	18.45	-6.06	253,704	412,197	570,690
-45	30.48	15.86	-5.89	195,472	304,777	414,082
-40	22.74	13.56	-5.71	151,062	227,378	303,694
-35	17.11	11.52	-5.55	117,173	171,105	225,037
-30	12.98	9.71	-5.39	91,263	129,834	168,404
-25	9.931	8.10	-5.24	71,399	99,310	127,221
-20	7.655	6.69	-5.09	56,121	76,553	96,985
-15	5.945	5.45	-4.95	44,324	59,453	74,581
-10	4.651	4.36	-4.81	35,179	46,506	57,834
-5	3.663	3.41	-4.67	28,058	36,633	45,208
0	2.905	2.58	-4.54	22,490	29,050	35,611
5	2.319	1.88	-4.42	18,115	23,187	28,260
10	1.862	1.27	-4.30	14,662	18,624	22,586
15	1.505	0.77	-4.18	11,925	15,050	18,175
20	1.223	0.34	-4.07	9,744.5	12,233	14,722
25	1.000	0.00	-3.96	8,000.0	10,000	12,000
30	0.8219	0.33	-3.85	6,548.3	8,219.4	9,890.5
35	0.6792	0.71	-3.75	5,385.3	6,791.7	8,198.1
40	0.5641	1.12	-3.65	4,449.2	5,640.8	6,832.3
45	0.4708	1.58	-3.55	3,692.2	4,708.1	5,724.0
50	0.3949	2.07	-3.46	3,077.3	3,948.5	4,819.7
55	0.3327	2.58	-3.37	2,575.6	3,326.8	4,078.0
60	0.2816	3.12	-3.28	2,164.6	2,815.6	3,466.6
65	0.2393	3.69	-3.20	1,826.4	2,393.3	2,960.1
70	0.2043	4.27	-3.12	1,547.0	2,042.8	2,538.6
75	0.1751	4.87	-3.04	1,315.3	1,750.8	2,186.2
80	0.1506	5.49	-2.96	1,122.4	1,506.4	1,890.3
85	0.1301	6.12	-2.89	961.2	1,301.0	1,640.8
90	0.1128	6.76	-2.82	826.0	1,127.8	1,429.6
95	0.0981	7.41	-2.75	712.2	981.1	1,250.0
100	0.0856	8.07	-2.68	616.0	856.4	1,096.9
105	0.0750	8.74	-2.61	534.5	750.1	965.7
110	0.0659	9.42	-2.55	465.2	659.1	853.0
115	0.0581	10.09	-2.49	406.1	580.9	755.8
120	0.0514	10.78	-2.43	355.5	513.6	671.7
125	0.0455	11.46	-2.37	312.1	455.4	598.7
130	0.0405	12.15	-2.32	274.7	404.9	535.1
135	0.0361	12.84	-2.26	242.5	361.1	479.6
140	0.0323	13.53	-2.21	214.6	322.8	431.0
145	0.0289	14.22	-2.16	190.3	289.3	388.3
150	0.0260	14.91	-2.11	169.2	260.0	350.7