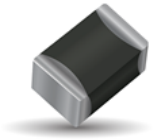
NB20K00123MBE

(1206, 12 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	12 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

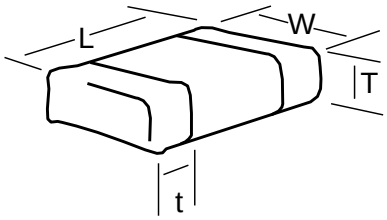
MSL 1
Pb Free
260°C

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	0123	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% * 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

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	395,979	675,226	954,473
-50	41.22	18.45	-6.06	304,445	494,637	684,829
-45	30.48	15.86	-5.89	234,566	365,732	496,899
-40	22.74	13.56	-5.71	181,275	272,854	364,433
-35	17.11	11.52	-5.55	140,607	205,326	270,044
-30	12.98	9.71	-5.39	109,515	155,800	202,085
-25	9.931	8.10	-5.24	85,679	119,172	152,666
-20	7.655	6.69	-5.09	67,345	91,863	116,382
-15	5.945	5.45	-4.95	53,189	71,343	89,498
-10	4.651	4.36	-4.81	42,214	55,807	69,400
-5	3.663	3.41	-4.67	33,670	43,960	54,249
0	2.905	2.58	-4.54	26,987	34,861	42,734
5	2.319	1.88	-4.42	21,738	27,825	33,912
10	1.862	1.27	-4.30	17,595	22,349	27,103
15	1.505	0.77	-4.18	14,310	18,060	21,810
20	1.223	0.34	-4.07	11,693	14,680	17,666
25	1.000	0.00	-3.96	9,600.0	12,000	14,400
30	0.8219	0.33	-3.85	7,858.0	9,863.3	11,869
35	0.6792	0.71	-3.75	6,462.4	8,150.0	9,837.7
40	0.5641	1.12	-3.65	5,339.0	6,768.9	8,198.8
45	0.4708	1.58	-3.55	4,430.6	5,649.7	6,868.9
50	0.3949	2.07	-3.46	3,692.7	4,738.2	5,783.7
55	0.3327	2.58	-3.37	3,090.7	3,992.2	4,893.6
60	0.2816	3.12	-3.28	2,597.5	3,378.7	4,159.9
65	0.2393	3.69	-3.20	2,191.7	2,871.9	3,552.1
70	0.2043	4.27	-3.12	1,856.5	2,451.4	3,046.3
75	0.1751	4.87	-3.04	1,578.4	2,100.9	2,623.5
80	0.1506	5.49	-2.96	1,346.9	1,807.6	2,268.4
85	0.1301	6.12	-2.89	1,153.5	1,561.2	1,969.0
90	0.1128	6.76	-2.82	991.2	1,353.3	1,715.5
95	0.0981	7.41	-2.75	854.6	1,177.3	1,500.1
100	0.0856	8.07	-2.68	739.2	1,027.7	1,316.2
105	0.0750	8.74	-2.61	641.4	900.1	1,158.8
110	0.0659	9.42	-2.55	558.3	790.9	1,023.6
115	0.0581	10.09	-2.49	487.3	697.1	906.9
120	0.0514	10.78	-2.43	426.6	616.3	806.0
125	0.0455	11.46	-2.37	374.5	546.5	718.4
130	0.0405	12.15	-2.32	329.7	485.9	642.2
135	0.0361	12.84	-2.26	291.0	433.3	575.6
140	0.0323	13.53	-2.21	257.5	387.4	517.2
145	0.0289	14.22	-2.16	228.4	347.2	466.0
150	0.0260	14.91	-2.11	203.1	312.0	420.9