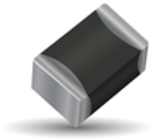
NB20M00393KBE

(1206, 39 kOhm ±10%, 3950K, 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	39 kOhm
Tolerance on Resistance (25°C)	±10%
B 25/85	3950K±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

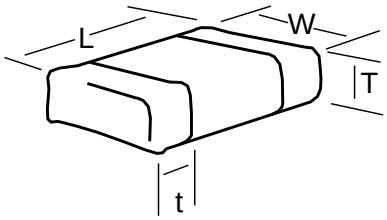
MSL 1
Pb Free
260°C

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	M0	0393	K	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

M0 (B25/85 = 3950K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3925 K	3944 K	3950 K	3958 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	99.59	15.64	-7.42	2,888,241	3,884,018	4,879,795
-50	68.97	14.25	-7.16	2,037,659	2,690,002	3,342,346
-45	48.40	12.94	-6.91	1,454,472	1,887,409	2,320,346
-40	34.38	11.69	-6.67	1,049,913	1,340,794	1,631,675
-35	24.71	10.51	-6.45	766,092	963,820	1,161,548
-30	17.97	9.39	-6.23	564,808	700,707	836,605
-25	13.20	8.33	-6.02	420,563	514,948	609,333
-20	9.804	7.31	-5.82	316,154	382,358	448,563
-15	7.352	6.35	-5.63	239,848	286,722	333,595
-10	5.565	5.43	-5.45	183,562	217,043	250,525
-5	4.251	4.55	-5.28	141,673	165,788	189,903
0	3.275	3.70	-5.11	110,230	127,735	145,240
5	2.544	2.90	-4.95	86,434	99,234	112,034
10	1.992	2.13	-4.80	68,281	77,705	87,129
15	1.572	1.39	-4.65	54,328	61,311	68,294
20	1.249	0.68	-4.51	43,525	48,729	53,933
25	1.000	0.00	-4.38	35,100	39,000	42,900
30	0.8057	0.66	-4.25	28,074	31,423	34,772
35	0.6534	1.30	-4.12	22,602	25,481	28,360
40	0.5331	1.92	-4.00	18,312	20,791	23,270
45	0.4376	2.53	-3.89	14,926	17,065	19,203
50	0.3612	3.12	-3.77	12,238	14,086	15,934
55	0.2998	3.70	-3.67	10,089	11,691	13,292
60	0.2501	4.26	-3.57	8,362.9	9,754.1	11,145
65	0.2097	4.81	-3.47	6,967.9	8,179.4	9,391.0
70	0.1767	5.35	-3.37	5,834.5	6,892.3	7,950.1
75	0.1496	5.87	-3.28	4,908.9	5,834.9	6,761.0
80	0.1272	6.38	-3.19	4,149.2	4,962.0	5,774.9
85	0.1087	6.88	-3.11	3,522.6	4,238.0	4,953.4
90	0.0932	7.37	-3.03	3,003.5	3,634.7	4,266.0
95	0.0803	7.84	-2.95	2,571.4	3,129.9	3,688.4
100	0.0694	8.31	-2.87	2,210.3	2,705.6	3,201.0
105	0.0602	8.76	-2.80	1,907.1	2,347.6	2,788.1
110	0.0524	9.21	-2.73	1,651.7	2,044.3	2,436.9
115	0.0458	9.64	-2.66	1,435.5	1,786.4	2,137.2
120	0.0402	10.07	-2.60	1,251.9	1,566.2	1,880.5
125	0.0353	10.48	-2.53	1,095.5	1,377.6	1,659.8
130	0.0312	10.89	-2.47	961.6	1,215.5	1,469.4
135	0.0276	11.29	-2.41	846.8	1,075.8	1,304.7
140	0.0245	11.68	-2.36	747.9	954.8	1,161.8
145	0.0218	12.06	-2.30	662.4	849.9	1,037.3
150	0.0194	12.43	-2.25	588.4	758.5	928.7