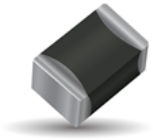
NB12M00333JBD

(0805, 33 kOhm ±5%, 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	0805
Operating temperature	-55°C to +150°C
Resistance	33 kOhm
Tolerance on Resistance (25°C)	±5%
B 25/85	3950K±3%
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 s
Termination	Ni barrier/100%Sn (for Pb free soldering)

RoHS COMPLIANT

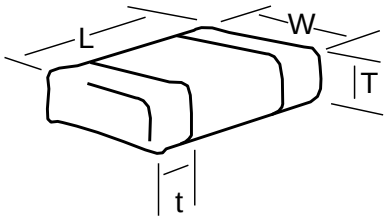
MSL 1
Pb Free
260°C

AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.0±0.3	1.25±0.2	1.3 max	0.2 min
	(0.079±0.012)	(0.049±0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB	12	M0	0333	J	BD
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NB = Ni/Sn Term for lead free soldering	12 = 0805	See Datasheet	2 Sig. Digits + Number of Zeros	H = ±3%* J = ±5% K = ±10% M = ±20%	BB = Cardboard tape (180mm reel, 4,000 pcs/reel) BF = Cardboard tape (180mm reel, 2,000 pcs/reel) BD = Cardboard 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

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	2,608,220	3,286,477	3,964,733
-50	68.97	14.25	-7.16	1,837,981	2,276,156	2,714,331
-45	48.40	12.94	-6.91	1,310,559	1,597,038	1,883,518
-40	34.38	11.69	-6.67	945,114	1,134,518	1,323,922
-35	24.71	10.51	-6.45	689,009	815,540	942,071
-30	17.97	9.39	-6.23	507,560	592,906	678,252
-25	13.20	8.33	-6.02	377,647	435,725	493,804
-20	9.804	7.31	-5.82	283,691	323,534	363,376
-15	7.352	6.35	-5.63	215,079	242,611	270,142
-10	5.565	5.43	-5.45	164,504	183,652	202,800
-5	4.251	4.55	-5.28	126,891	140,282	153,673
0	3.275	3.70	-5.11	98,676	108,084	117,491
5	2.544	2.90	-4.95	77,335	83,967	90,599
10	1.992	2.13	-4.80	61,064	65,751	70,437
15	1.572	1.39	-4.65	48,564	51,879	55,193
20	1.249	0.68	-4.51	38,890	41,232	43,574
25	1.000	0.00	-4.38	31,350	33,000	34,650
30	0.8057	0.66	-4.25	25,084	26,589	28,093
35	0.6534	1.30	-4.12	20,203	21,561	22,919
40	0.5331	1.92	-4.00	16,375	17,592	18,810
45	0.4376	2.53	-3.89	13,352	14,439	15,526
50	0.3612	3.12	-3.77	10,951	11,919	12,887
55	0.2998	3.70	-3.67	9,031.7	9,892.3	10,753
60	0.2501	4.26	-3.57	7,489.0	8,253.5	9,018.0
65	0.2097	4.81	-3.47	6,241.9	6,921.0	7,600.1
70	0.1767	5.35	-3.37	5,228.5	5,832.0	6,435.4
75	0.1496	5.87	-3.28	4,400.5	4,937.2	5,474.0
80	0.1272	6.38	-3.19	3,720.8	4,198.6	4,676.5
85	0.1087	6.88	-3.11	3,160.0	3,586.0	4,012.0
90	0.0932	7.37	-3.03	2,695.2	3,075.5	3,455.9
95	0.0803	7.84	-2.95	2,308.2	2,648.4	2,988.5
100	0.0694	8.31	-2.87	1,984.7	2,289.4	2,594.0
105	0.0602	8.76	-2.80	1,713.1	1,986.4	2,259.8
110	0.0524	9.21	-2.73	1,484.0	1,729.8	1,975.5
115	0.0458	9.64	-2.66	1,290.2	1,511.5	1,732.8
120	0.0402	10.07	-2.60	1,125.6	1,325.2	1,524.9
125	0.0353	10.48	-2.53	985.2	1,165.7	1,346.1
130	0.0312	10.89	-2.47	865.1	1,028.5	1,191.9
135	0.0276	11.29	-2.41	762.0	910.3	1,058.5
140	0.0245	11.68	-2.36	673.2	807.9	942.7
145	0.0218	12.06	-2.30	596.5	719.1	841.8
150	0.0194	12.43	-2.25	530.0	641.8	753.7