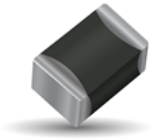
NB12M00273MBB

(0805, 27 kOhm ±20%, 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	27 kOhm
Tolerance on Resistance (25°C)	±20%
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

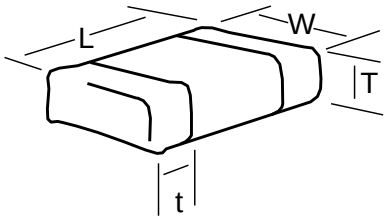
MSL 1
Pb Free
260°C

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	0273	M	BB
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	1,730,658	2,688,936	3,647,213
-50	68.97	14.25	-7.16	1,224,456	1,862,309	2,500,163
-45	48.40	12.94	-6.91	876,275	1,306,668	1,737,060
-40	34.38	11.69	-6.67	634,039	928,242	1,222,445
-35	24.71	10.51	-6.45	463,646	667,260	870,874
-30	17.97	9.39	-6.23	342,510	485,105	627,699
-25	13.20	8.33	-6.02	255,509	356,503	457,497
-20	9.804	7.31	-5.82	192,405	264,710	337,014
-15	7.352	6.35	-5.63	146,199	198,500	250,801
-10	5.565	5.43	-5.45	112,055	150,261	188,466
-5	4.251	4.55	-5.28	86,604	114,776	142,949
0	3.275	3.70	-5.11	67,470	88,432	109,394
5	2.544	2.90	-4.95	52,969	68,700	84,432
10	1.992	2.13	-4.80	41,892	53,796	65,700
15	1.572	1.39	-4.65	33,367	42,446	51,525
20	1.249	0.68	-4.51	26,759	33,735	40,712
25	1.000	0.00	-4.38	21,600	27,000	32,400
30	0.8057	0.66	-4.25	17,261	21,754	26,248
35	0.6534	1.30	-4.12	13,884	17,641	21,398
40	0.5331	1.92	-4.00	11,238	14,394	17,549
45	0.4376	2.53	-3.89	9,152.3	11,814	14,476
50	0.3612	3.12	-3.77	7,497.0	9,751.8	12,007
55	0.2998	3.70	-3.67	6,175.5	8,093.7	10,012
60	0.2501	4.26	-3.57	5,114.4	6,752.9	8,391.3
65	0.2097	4.81	-3.47	4,257.6	5,662.7	7,067.7
70	0.1767	5.35	-3.37	3,562.1	4,771.6	5,981.1
75	0.1496	5.87	-3.28	2,994.5	4,039.6	5,084.6
80	0.1272	6.38	-3.19	2,529.0	3,435.2	4,341.5
85	0.1087	6.88	-3.11	2,145.3	2,934.0	3,722.7
90	0.0932	7.37	-3.03	1,827.7	2,516.4	3,205.0
95	0.0803	7.84	-2.95	1,563.5	2,166.9	2,770.2
100	0.0694	8.31	-2.87	1,342.9	1,873.1	2,403.4
105	0.0602	8.76	-2.80	1,157.8	1,625.3	2,092.7
110	0.0524	9.21	-2.73	1,001.9	1,415.3	1,828.6
115	0.0458	9.64	-2.66	870.1	1,236.7	1,603.3
120	0.0402	10.07	-2.60	758.3	1,084.3	1,410.3
125	0.0353	10.48	-2.53	663.0	953.7	1,244.5
130	0.0312	10.89	-2.47	581.6	841.5	1,101.5
135	0.0276	11.29	-2.41	511.8	744.8	977.8
140	0.0245	11.68	-2.36	451.7	661.0	870.4
145	0.0218	12.06	-2.30	399.8	588.4	777.0
150	0.0194	12.43	-2.25	354.8	525.1	695.4