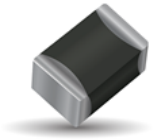
NB12M00223J--

(0805, 22 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	22 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

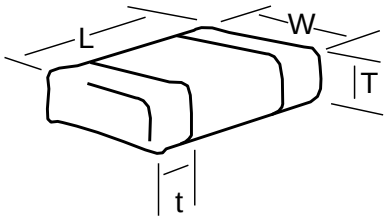
MSL 1
Pb Free
260°C

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	0223	J	--
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	1,738,813	2,190,985	2,643,156
-50	68.97	14.25	-7.16	1,225,321	1,517,437	1,809,554
-45	48.40	12.94	-6.91	873,706	1,064,692	1,255,678
-40	34.38	11.69	-6.67	630,076	756,345	882,615
-35	24.71	10.51	-6.45	459,339	543,693	628,047
-30	17.97	9.39	-6.23	338,373	395,270	452,168
-25	13.20	8.33	-6.02	251,765	290,484	329,202
-20	9.804	7.31	-5.82	189,128	215,689	242,251
-15	7.352	6.35	-5.63	143,386	161,740	180,095
-10	5.565	5.43	-5.45	109,670	122,435	135,200
-5	4.251	4.55	-5.28	84,594	93,521	102,448
0	3.275	3.70	-5.11	65,784	72,056	78,327
5	2.544	2.90	-4.95	51,557	55,978	60,400
10	1.992	2.13	-4.80	40,709	43,834	46,958
15	1.572	1.39	-4.65	32,376	34,586	36,795
20	1.249	0.68	-4.51	25,927	27,488	29,049
25	1.000	0.00	-4.38	20,900	22,000	23,100
30	0.8057	0.66	-4.25	16,723	17,726	18,729
35	0.6534	1.30	-4.12	13,469	14,374	15,279
40	0.5331	1.92	-4.00	10,916	11,728	12,540
45	0.4376	2.53	-3.89	8,901.3	9,626.2	10,351
50	0.3612	3.12	-3.77	7,300.5	7,945.9	8,591.3
55	0.2998	3.70	-3.67	6,021.1	6,594.8	7,168.6
60	0.2501	4.26	-3.57	4,992.7	5,502.3	6,012.0
65	0.2097	4.81	-3.47	4,161.3	4,614.0	5,066.8
70	0.1767	5.35	-3.37	3,485.6	3,888.0	4,290.3
75	0.1496	5.87	-3.28	2,933.7	3,291.5	3,649.3
80	0.1272	6.38	-3.19	2,480.5	2,799.1	3,117.7
85	0.1087	6.88	-3.11	2,106.7	2,390.7	2,674.7
90	0.0932	7.37	-3.03	1,796.8	2,050.4	2,303.9
95	0.0803	7.84	-2.95	1,538.8	1,765.6	1,992.3
100	0.0694	8.31	-2.87	1,323.1	1,526.2	1,729.4
105	0.0602	8.76	-2.80	1,142.0	1,324.3	1,506.5
110	0.0524	9.21	-2.73	989.4	1,153.2	1,317.0
115	0.0458	9.64	-2.66	860.2	1,007.7	1,155.2
120	0.0402	10.07	-2.60	750.4	883.5	1,016.6
125	0.0353	10.48	-2.53	656.8	777.1	897.4
130	0.0312	10.89	-2.47	576.8	685.7	794.6
135	0.0276	11.29	-2.41	508.0	606.8	705.7
140	0.0245	11.68	-2.36	448.8	538.6	628.4
145	0.0218	12.06	-2.30	397.7	479.4	561.2
150	0.0194	12.43	-2.25	353.3	427.9	502.5