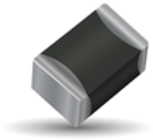
NB12N00393M--

(0805, 39 kOhm ±20%, 4080K, 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	39 kOhm
Tolerance on Resistance (25°C)	±20%
B 25/85	4080K±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

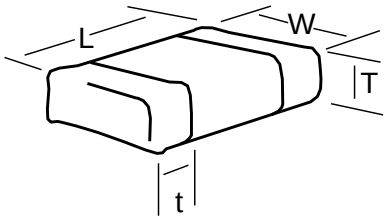
MSL 1
Pb Free
260°C

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	N0	0393	M	--
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

N0 (B25/85 = 4080K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4049 K	4072 K	4080 K	4090 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	110.1	24.01	-7.50	2,404,244	4,293,796	6,183,348
-50	75.89	20.74	-7.25	1,753,889	2,959,685	4,165,481
-45	52.97	17.83	-7.01	1,284,326	2,065,926	2,847,525
-40	37.42	15.25	-6.78	945,100	1,459,537	1,973,975
-35	26.75	12.95	-6.56	699,403	1,043,098	1,386,794
-30	19.33	10.91	-6.35	520,754	753,763	986,771
-25	14.11	9.11	-6.14	390,233	550,482	710,731
-20	10.41	7.52	-5.95	294,357	406,126	517,895
-15	7.758	6.12	-5.76	223,521	302,556	381,591
-10	5.834	4.90	-5.58	170,867	227,513	284,159
-5	4.426	3.83	-5.41	131,486	172,623	213,759
0	3.387	2.91	-5.24	101,847	132,106	162,365
5	2.614	2.11	-5.08	79,400	101,937	124,475
10	2.033	1.43	-4.93	62,292	79,284	96,276
15	1.593	0.86	-4.78	49,175	62,136	75,098
20	1.258	0.39	-4.64	39,054	49,054	59,055
25	1.000	0.00	-4.51	31,200	39,000	46,800
30	0.8004	0.37	-4.37	24,857	31,216	37,576
35	0.6449	0.80	-4.25	19,919	25,149	30,379
40	0.5228	1.26	-4.13	16,053	20,388	24,723
45	0.4264	1.77	-4.01	13,007	16,628	20,248
50	0.3497	2.32	-3.90	10,595	13,640	16,684
55	0.2885	2.90	-3.79	8,674.4	11,251	13,828
60	0.2392	3.51	-3.68	7,136.9	9,330.4	11,524
65	0.1994	4.14	-3.58	5,899.9	7,777.6	9,655.4
70	0.1671	4.80	-3.49	4,899.8	6,515.6	8,131.4
75	0.1406	5.48	-3.39	4,087.3	5,484.4	6,881.6
80	0.1189	6.17	-3.30	3,424.1	4,637.8	5,851.5
85	0.1010	6.88	-3.22	2,880.5	3,939.3	4,998.2
90	0.0862	7.60	-3.13	2,433.0	3,360.4	4,287.9
95	0.0738	8.33	-3.05	2,062.9	2,878.4	3,694.0
100	0.0635	9.08	-2.97	1,755.7	2,475.4	3,195.2
105	0.0548	9.83	-2.90	1,499.6	2,137.0	2,774.4
110	0.0475	10.58	-2.83	1,285.4	1,851.8	2,418.1
115	0.0413	11.35	-2.76	1,105.5	1,610.3	2,115.1
120	0.0360	12.11	-2.69	953.9	1,405.2	1,856.5
125	0.0315	12.89	-2.62	825.7	1,230.3	1,634.9
130	0.0277	13.66	-2.56	716.9	1,080.7	1,444.4
135	0.0244	14.43	-2.50	624.3	952.2	1,280.1
140	0.0216	15.21	-2.44	545.3	841.5	1,137.8
145	0.0191	15.98	-2.38	477.5	745.9	1,014.3
150	0.0170	16.76	-2.33	419.3	663.0	906.7