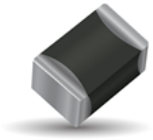
NB12N00393KBF

(0805, 39 kOhm ±10%, 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)	±10%
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

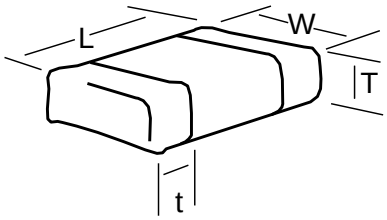
MSL 1
Pb Free
260°C

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	K	BF
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	2,833,624	4,293,796	5,753,968
-50	75.89	20.74	-7.25	2,049,858	2,959,685	3,869,513
-45	52.97	17.83	-7.01	1,490,919	2,065,926	2,640,933
-40	37.42	15.25	-6.78	1,091,054	1,459,537	1,828,021
-35	26.75	12.95	-6.56	803,713	1,043,098	1,282,484
-30	19.33	10.91	-6.35	596,131	753,763	911,395
-25	14.11	9.11	-6.14	445,281	550,482	655,683
-20	10.41	7.52	-5.95	334,969	406,126	477,282
-15	7.758	6.12	-5.76	253,776	302,556	351,336
-10	5.834	4.90	-5.58	193,618	227,513	261,407
-5	4.426	3.83	-5.41	148,748	172,623	196,497
0	3.387	2.91	-5.24	115,058	132,106	149,155
5	2.614	2.11	-5.08	89,593	101,937	114,281
10	2.033	1.43	-4.93	70,221	79,284	88,347
15	1.593	0.86	-4.78	55,388	62,136	68,884
20	1.258	0.39	-4.64	43,960	49,054	54,149
25	1.000	0.00	-4.51	35,100	39,000	42,900
30	0.8004	0.37	-4.37	27,979	31,216	34,454
35	0.6449	0.80	-4.25	22,434	25,149	27,864
40	0.5228	1.26	-4.13	18,091	20,388	22,685
45	0.4264	1.77	-4.01	14,670	16,628	18,586
50	0.3497	2.32	-3.90	11,959	13,640	15,320
55	0.2885	2.90	-3.79	9,799.5	11,251	12,702
60	0.2392	3.51	-3.68	8,069.9	9,330.4	10,591
65	0.1994	4.14	-3.58	6,677.7	7,777.6	8,877.6
70	0.1671	4.80	-3.49	5,551.3	6,515.6	7,479.8
75	0.1406	5.48	-3.39	4,635.7	5,484.4	6,333.2
80	0.1189	6.17	-3.30	3,887.9	4,637.8	5,387.7
85	0.1010	6.88	-3.22	3,274.5	3,939.3	4,604.2
90	0.0862	7.60	-3.13	2,769.0	3,360.4	3,951.9
95	0.0738	8.33	-3.05	2,350.7	2,878.4	3,406.1
100	0.0635	9.08	-2.97	2,003.2	2,475.4	2,947.6
105	0.0548	9.83	-2.90	1,713.3	2,137.0	2,560.7
110	0.0475	10.58	-2.83	1,470.6	1,851.8	2,232.9
115	0.0413	11.35	-2.76	1,266.6	1,610.3	1,954.1
120	0.0360	12.11	-2.69	1,094.5	1,405.2	1,716.0
125	0.0315	12.89	-2.62	948.8	1,230.3	1,511.9
130	0.0277	13.66	-2.56	825.0	1,080.7	1,336.4
135	0.0244	14.43	-2.50	719.6	952.2	1,184.9
140	0.0216	15.21	-2.44	629.4	841.5	1,053.7
145	0.0191	15.98	-2.38	552.1	745.9	939.7
150	0.0170	16.76	-2.33	485.6	663.0	840.4