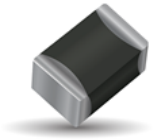
NB12N00393HBF

(0805, 39 kOhm ±3%, 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)	±3%
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

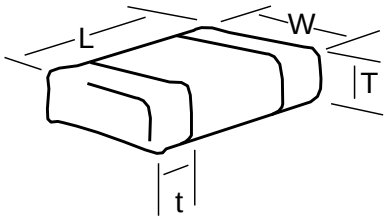
MSL 1
Pb Free
260°C

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	H	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	3,134,190	4,293,796	5,453,403
-50	75.89	20.74	-7.25	2,257,036	2,959,685	3,662,335
-45	52.97	17.83	-7.01	1,635,534	2,065,926	2,496,318
-40	37.42	15.25	-6.78	1,193,221	1,459,537	1,725,853
-35	26.75	12.95	-6.56	876,730	1,043,098	1,209,467
-30	19.33	10.91	-6.35	648,894	753,763	858,631
-25	14.11	9.11	-6.14	483,815	550,482	617,149
-20	10.41	7.52	-5.95	363,398	406,126	448,853
-15	7.758	6.12	-5.76	274,955	302,556	330,157
-10	5.834	4.90	-5.58	209,544	227,513	245,481
-5	4.426	3.83	-5.41	160,832	172,623	184,413
0	3.387	2.91	-5.24	124,305	132,106	139,907
5	2.614	2.11	-5.08	96,729	101,937	107,146
10	2.033	1.43	-4.93	75,771	79,284	82,797
15	1.593	0.86	-4.78	59,738	62,136	64,535
20	1.258	0.39	-4.64	47,394	49,054	50,715
25	1.000	0.00	-4.51	37,830	39,000	40,170
30	0.8004	0.37	-4.37	30,164	31,216	32,269
35	0.6449	0.80	-4.25	24,195	25,149	26,104
40	0.5228	1.26	-4.13	19,519	20,388	21,257
45	0.4264	1.77	-4.01	15,834	16,628	17,422
50	0.3497	2.32	-3.90	12,914	13,640	14,366
55	0.2885	2.90	-3.79	10,587	11,251	11,915
60	0.2392	3.51	-3.68	8,723.1	9,330.4	9,937.7
65	0.1994	4.14	-3.58	7,222.1	7,777.6	8,333.2
70	0.1671	4.80	-3.49	6,007.4	6,515.6	7,023.7
75	0.1406	5.48	-3.39	5,019.6	5,484.4	5,949.3
80	0.1189	6.17	-3.30	4,212.6	4,637.8	5,063.1
85	0.1010	6.88	-3.22	3,550.2	3,939.3	4,328.5
90	0.0862	7.60	-3.13	3,004.2	3,360.4	3,716.6
95	0.0738	8.33	-3.05	2,552.2	2,878.4	3,204.7
100	0.0635	9.08	-2.97	2,176.5	2,475.4	2,774.4
105	0.0548	9.83	-2.90	1,862.9	2,137.0	2,411.2
110	0.0475	10.58	-2.83	1,600.2	1,851.8	2,103.3
115	0.0413	11.35	-2.76	1,379.3	1,610.3	1,841.4
120	0.0360	12.11	-2.69	1,192.8	1,405.2	1,617.6
125	0.0315	12.89	-2.62	1,034.9	1,230.3	1,425.8
130	0.0277	13.66	-2.56	900.7	1,080.7	1,260.7
135	0.0244	14.43	-2.50	786.2	952.2	1,118.2
140	0.0216	15.21	-2.44	688.3	841.5	994.8
145	0.0191	15.98	-2.38	604.3	745.9	887.5
150	0.0170	16.76	-2.33	532.0	663.0	794.0