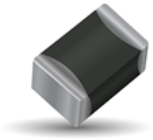
NB12N00503H--

(0805, 50 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	50 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

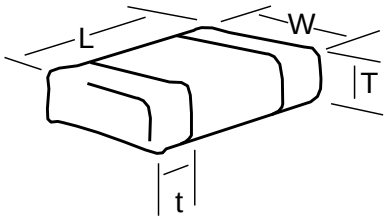
MSL 1
Pb Free
260°C

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	0503	H	--
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	4,018,192	5,504,867	6,991,542
-50	75.89	20.74	-7.25	2,893,636	3,794,468	4,695,301
-45	52.97	17.83	-7.01	2,096,838	2,648,623	3,200,407
-40	37.42	15.25	-6.78	1,529,771	1,871,202	2,212,632
-35	26.75	12.95	-6.56	1,124,013	1,337,306	1,550,599
-30	19.33	10.91	-6.35	831,915	966,362	1,100,809
-25	14.11	9.11	-6.14	620,275	705,746	791,217
-20	10.41	7.52	-5.95	465,895	520,674	575,453
-15	7.758	6.12	-5.76	352,506	387,892	423,278
-10	5.834	4.90	-5.58	268,647	291,683	314,720
-5	4.426	3.83	-5.41	206,195	221,311	236,427
0	3.387	2.91	-5.24	159,365	169,367	179,368
5	2.614	2.11	-5.08	124,011	130,689	137,366
10	2.033	1.43	-4.93	97,142	101,646	106,150
15	1.593	0.86	-4.78	76,587	79,662	82,737
20	1.258	0.39	-4.64	60,761	62,890	65,020
25	1.000	0.00	-4.51	48,500	50,000	51,500
30	0.8004	0.37	-4.37	38,672	40,021	41,371
35	0.6449	0.80	-4.25	31,019	32,243	33,466
40	0.5228	1.26	-4.13	25,024	26,139	27,253
45	0.4264	1.77	-4.01	20,300	21,318	22,336
50	0.3497	2.32	-3.90	16,556	17,487	18,417
55	0.2885	2.90	-3.79	13,573	14,424	15,275
60	0.2392	3.51	-3.68	11,183	11,962	12,741
65	0.1994	4.14	-3.58	9,259.1	9,971.3	10,684
70	0.1671	4.80	-3.49	7,701.8	8,353.3	9,004.8
75	0.1406	5.48	-3.39	6,435.4	7,031.3	7,627.3
80	0.1189	6.17	-3.30	5,400.7	5,945.9	6,491.1
85	0.1010	6.88	-3.22	4,551.6	5,050.4	5,549.3
90	0.0862	7.60	-3.13	3,851.6	4,308.2	4,764.9
95	0.0738	8.33	-3.05	3,272.1	3,690.3	4,108.5
100	0.0635	9.08	-2.97	2,790.4	3,173.6	3,556.9
105	0.0548	9.83	-2.90	2,388.4	2,739.8	3,091.2
110	0.0475	10.58	-2.83	2,051.6	2,374.1	2,696.6
115	0.0413	11.35	-2.76	1,768.3	2,064.5	2,360.7
120	0.0360	12.11	-2.69	1,529.3	1,801.6	2,073.9
125	0.0315	12.89	-2.62	1,326.8	1,577.3	1,827.9
130	0.0277	13.66	-2.56	1,154.7	1,385.5	1,616.3
135	0.0244	14.43	-2.50	1,008.0	1,220.8	1,433.6
140	0.0216	15.21	-2.44	882.5	1,078.9	1,275.3
145	0.0191	15.98	-2.38	774.8	956.3	1,137.8
150	0.0170	16.76	-2.33	682.1	850.0	1,017.9