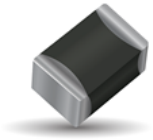
NB12J00502KBD

(0805, 5000 Ohm ±10%, 3480K, 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	5000 Ohm
Tolerance on Resistance (25°C)	±10%
B 25/85	3480K±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

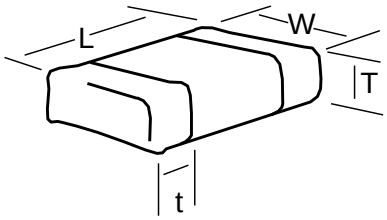
MSL 1
Pb Free
260°C

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 — **Type**
NB = Ni/Sn Term for lead free soldering

12 — **Size**
12 = 0805

J0 — **Material Code**
See Datasheet

0502 — **Resistance (Ohm)**
2 Sig. Digits + Number of Zeros

K — **Tolerance**
H = ±3%*
J = ±5%
K = ±10%
M = ±20%

* For selected PNs

BD — **Suffix: Packaging**
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)

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

J0 (B25/85 = 3480K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3443 K	3471 K	3480 K	3492 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	51.75	20.47	-6.23	179,900	258,756	337,612
-50	37.98	17.69	-6.03	137,311	189,891	242,471
-45	28.15	15.21	-5.84	105,274	140,758	176,243
-40	21.07	13.00	-5.65	81,112	105,346	129,579
-35	15.91	11.04	-5.48	62,827	79,573	96,318
-30	12.13	9.31	-5.31	48,931	60,639	72,347
-25	9.321	7.77	-5.15	38,323	46,604	54,886
-20	7.222	6.41	-4.99	30,184	36,111	42,039
-15	5.640	5.22	-4.84	23,908	28,201	32,494
-10	4.438	4.18	-4.69	19,044	22,190	25,336
-5	3.517	3.27	-4.55	15,254	17,587	19,920
0	2.807	2.48	-4.42	12,284	14,036	15,787
5	2.255	1.80	-4.29	9,946.5	11,277	12,608
10	1.824	1.22	-4.17	8,095.9	9,119.2	10,142
15	1.484	0.73	-4.05	6,623.6	7,420.0	8,216.4
20	1.215	0.33	-3.93	5,446.2	6,073.5	6,700.8
25	1.000	0.00	-3.82	4,500.0	5,000.0	5,500.0
30	0.8278	0.32	-3.71	3,712.0	4,139.1	4,566.1
35	0.6889	0.68	-3.61	3,076.8	3,444.7	3,812.5
40	0.5763	1.08	-3.51	2,562.3	2,881.5	3,200.7
45	0.4845	1.51	-3.41	2,143.5	2,422.3	2,701.2
50	0.4092	1.98	-3.32	1,801.0	2,046.1	2,291.2
55	0.3472	2.47	-3.23	1,519.7	1,736.2	1,952.8
60	0.2960	2.99	-3.15	1,287.6	1,479.8	1,672.1
65	0.2533	3.53	-3.06	1,095.3	1,266.7	1,438.1
70	0.2177	4.09	-2.98	935.3	1,088.7	1,242.2
75	0.1879	4.67	-2.90	801.7	939.5	1,077.3
80	0.1628	5.26	-2.83	689.6	813.9	938.1
85	0.1415	5.87	-2.76	595.3	707.6	819.9
90	0.1235	6.48	-2.69	515.7	617.4	719.2
95	0.1081	7.11	-2.62	448.1	540.6	633.1
100	0.0950	7.74	-2.55	390.7	475.0	559.2
105	0.0837	8.38	-2.49	341.7	418.6	495.6
110	0.0740	9.03	-2.43	299.7	370.1	440.5
115	0.0656	9.68	-2.37	263.6	328.2	392.8
120	0.0584	10.33	-2.31	232.5	291.9	351.2
125	0.0521	10.99	-2.26	205.7	260.3	314.9
130	0.0466	11.65	-2.21	182.4	232.8	283.2
135	0.0417	12.31	-2.15	162.2	208.7	255.3
140	0.0375	12.97	-2.10	144.5	187.6	230.7
145	0.0338	13.63	-2.06	129.1	169.1	209.0
150	0.0305	14.29	-2.01	115.6	152.7	189.8