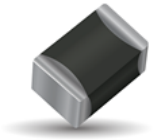
NB21J00502MBD

(0603, 5000 Ohm ±20%, 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	0603
Operating temperature	-55°C to +150°C
Resistance	5000 Ohm
Tolerance on Resistance (25°C)	±20%
B 25/85	3480K±3%
Maximum dissipation at 25°C	0.07 W
Thermal dissipation factor	1 mW/°C
Thermal time constant	4 s
Termination	Ni barrier/100%Sn (for Pb free soldering)

RoHS COMPLIANT

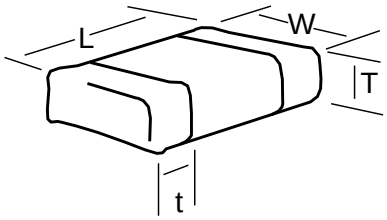
MSL 1
Pb Free
260°C

AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0603	1.6±0.2	0.8±0.2	1.0 max	0.2 min
	(0.063±0.008)	(0.031±0.008)	(0.039) max	(0.008) min



How to Order (Packaging options)

NB	21	J0	0502	M	BD
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NB = Ni/Sn Term for lead free soldering	21 = 0603	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

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	154,025	258,756	363,487
-50	37.98	17.69	-6.03	118,322	189,891	261,460
-45	28.15	15.21	-5.84	91,198	140,758	190,319
-40	21.07	13.00	-5.65	70,578	105,346	140,114
-35	15.91	11.04	-5.48	54,870	79,573	104,276
-30	12.13	9.31	-5.31	42,867	60,639	78,411
-25	9.321	7.77	-5.15	33,662	46,604	59,547
-20	7.222	6.41	-4.99	26,573	36,111	45,650
-15	5.640	5.22	-4.84	21,088	28,201	35,314
-10	4.438	4.18	-4.69	16,825	22,190	27,555
-5	3.517	3.27	-4.55	13,495	17,587	21,679
0	2.807	2.48	-4.42	10,881	14,036	17,191
5	2.255	1.80	-4.29	8,819	11,277	13,735
10	1.824	1.22	-4.17	7,184	9,119	11,054
15	1.484	0.73	-4.05	5,882	7,420	8,958
20	1.215	0.33	-3.93	4,839	6,074	7,308
25	1.000	0.00	-3.82	4,000	5,000	6,000
30	0.8278	0.32	-3.71	3,298	4,139	4,980
35	0.6889	0.68	-3.61	2,732	3,445	4,157
40	0.5763	1.08	-3.51	2,274	2,881	3,489
45	0.4845	1.51	-3.41	1,901	2,422	2,943
50	0.4092	1.98	-3.32	1,596	2,046	2,496
55	0.3472	2.47	-3.23	1,346	1,736	2,126
60	0.2960	2.99	-3.15	1,140	1,480	1,820
65	0.2533	3.53	-3.06	968.6	1,267	1,565
70	0.2177	4.09	-2.98	826.4	1,089	1,351
75	0.1879	4.67	-2.90	707.7	939.5	1,171
80	0.1628	5.26	-2.83	608.3	813.9	1,019
85	0.1415	5.87	-2.76	524.6	707.6	890.6
90	0.1235	6.48	-2.69	453.9	617.4	781.0
95	0.1081	7.11	-2.62	394.1	540.6	687.2
100	0.0950	7.74	-2.55	343.2	475.0	606.7
105	0.0837	8.38	-2.49	299.8	418.6	537.4
110	0.0740	9.03	-2.43	262.7	370.1	477.5
115	0.0656	9.68	-2.37	230.8	328.2	425.6
120	0.0584	10.33	-2.31	203.3	291.9	380.4
125	0.0521	10.99	-2.26	179.6	260.3	341.0
130	0.0466	11.65	-2.21	159.1	232.8	306.5
135	0.0417	12.31	-2.15	141.3	208.7	276.2
140	0.0375	12.97	-2.10	125.8	187.6	249.5
145	0.0338	13.63	-2.06	112.2	169.1	226.0
150	0.0305	14.29	-2.01	100.4	152.7	205.1