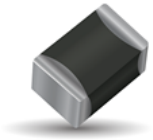
NB21N50104HBD

(0603, 100 kOhm ±3%, 4160K, 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	100 kOhm
Tolerance on Resistance (25°C)	±3%
B 25/85	4160K±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

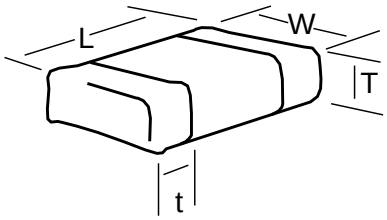
MSL 1
Pb Free
260°C

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	N5	0104	H	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

N5 (B25/85 = 4160K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4124 K	4151 K	4160 K	4171 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	115.8	16.32	-7.52	9,346,017	11,583,639	13,821,261
-50	79.72	14.10	-7.28	6,609,318	7,972,380	9,335,441
-45	55.54	12.12	-7.04	4,714,457	5,554,320	6,394,182
-40	39.15	10.36	-6.82	3,392,049	3,915,244	4,438,438
-35	27.91	8.80	-6.61	2,461,660	2,791,050	3,120,440
-30	20.11	7.42	-6.40	1,801,720	2,011,236	2,220,752
-25	14.64	6.19	-6.20	1,329,786	1,464,401	1,599,016
-20	10.77	5.11	-6.01	989,559	1,076,916	1,164,274
-15	7.996	4.16	-5.83	742,316	799,577	856,839
-10	5.991	3.33	-5.65	561,228	599,149	637,069
-5	4.529	2.60	-5.48	427,569	452,950	478,330
0	3.454	1.97	-5.31	328,171	345,351	362,530
5	2.655	1.43	-5.16	253,704	265,475	277,246
10	2.057	0.97	-5.00	197,515	205,687	213,858
15	1.606	0.58	-4.86	154,819	160,575	166,331
20	1.263	0.26	-4.72	122,155	126,274	130,394
25	1.000	0.00	-4.58	97,000	100,000	103,000
30	0.7973	0.25	-4.45	77,136	79,729	82,323
35	0.6398	0.54	-4.32	61,717	63,983	66,248
40	0.5167	0.86	-4.20	49,674	51,668	53,663
45	0.4198	1.21	-4.09	40,211	41,977	43,742
50	0.3430	1.58	-3.97	32,732	34,302	35,872
55	0.2819	1.97	-3.86	26,786	28,188	29,589
60	0.2329	2.39	-3.76	22,035	23,289	24,543
65	0.1934	2.82	-3.66	18,217	19,342	20,466
70	0.1614	3.26	-3.56	15,133	16,144	17,155
75	0.1354	3.72	-3.46	12,631	13,541	14,451
80	0.1141	4.19	-3.37	10,590	11,410	12,231
85	0.0966	4.67	-3.29	8,917	9,658	10,400
90	0.0821	5.17	-3.20	7,541	8,211	8,882
95	0.0701	5.66	-3.12	6,403	7,010	7,617
100	0.0601	6.17	-3.04	5,458	6,009	6,560
105	0.0517	6.68	-2.96	4,670	5,171	5,671
110	0.0447	7.19	-2.89	4,011	4,467	4,922
115	0.0387	7.71	-2.82	3,457	3,872	4,287
120	0.0337	8.23	-2.75	2,990	3,369	3,747
125	0.0294	8.76	-2.68	2,595	2,941	3,287
130	0.0258	9.28	-2.62	2,259	2,576	2,892
135	0.0226	9.81	-2.55	1,973	2,263	2,553
140	0.0199	10.34	-2.49	1,729	1,995	2,261
145	0.0176	10.86	-2.44	1,519	1,763	2,008
150	0.0156	11.39	-2.38	1,338	1,563	1,788