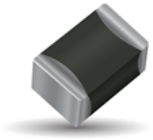
NB12P00104J--

(0805, 100 kOhm ±5%, 4220K, 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	100 kOhm
Tolerance on Resistance (25°C)	±5%
B 25/85	4220K±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

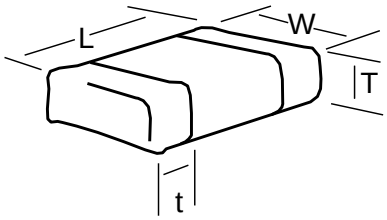
MSL 1
Pb Free
260°C

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	P0	0104	J	--
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

P0 (B25/85 = 4220K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4181 K	4211 K	4220 K	4232 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	121.4	24.83	-7.56	8,517,296	12,138,140	15,758,985
-50	83.35	21.45	-7.32	6,129,974	8,334,699	10,539,425
-45	57.92	18.44	-7.09	4,434,383	5,792,400	7,150,416
-40	40.72	15.77	-6.87	3,226,584	4,072,416	4,918,248
-35	28.95	13.39	-6.66	2,362,644	2,895,177	3,427,710
-30	20.80	11.29	-6.45	1,741,540	2,080,373	2,419,206
-25	15.10	9.42	-6.26	1,292,492	1,510,332	1,728,173
-20	11.07	7.78	-6.07	965,876	1,107,387	1,248,899
-15	8.197	6.33	-5.89	726,814	819,709	912,604
-10	6.123	5.07	-5.71	550,709	612,348	673,986
-5	4.615	3.96	-5.54	420,136	461,493	502,851
0	3.508	3.00	-5.38	322,689	350,768	378,846
5	2.688	2.18	-5.22	249,492	268,797	288,101
10	2.076	1.48	-5.07	194,156	207,610	221,064
15	1.616	0.89	-4.92	152,056	161,571	171,087
20	1.267	0.40	-4.78	119,826	126,664	133,503
25	1.000	0.00	-4.64	95,000	100,000	105,000
30	0.7949	0.38	-4.51	75,206	79,486	83,766
35	0.6359	0.82	-4.38	59,892	63,595	67,298
40	0.5120	1.31	-4.26	47,973	51,202	54,432
45	0.4148	1.84	-4.14	38,641	41,476	44,311
50	0.3379	2.40	-4.03	31,293	33,794	36,295
55	0.2769	3.00	-3.92	25,476	27,691	29,907
60	0.2281	3.63	-3.81	20,846	22,814	24,783
65	0.1890	4.28	-3.71	17,141	18,895	20,650
70	0.1573	4.96	-3.61	14,162	15,729	17,296
75	0.1316	5.66	-3.52	11,755	13,158	14,561
80	0.1106	6.38	-3.42	9,800.0	11,058	12,317
85	0.0934	7.11	-3.34	8,205.7	9,336.7	10,468
90	0.0792	7.86	-3.25	6,899.5	7,917.8	8,936.1
95	0.0674	8.62	-3.17	5,824.8	6,743.1	7,661.4
100	0.0577	9.39	-3.09	4,936.6	5,766.3	6,595.9
105	0.0495	10.16	-3.01	4,199.8	4,950.5	5,701.2
110	0.0427	10.95	-2.93	3,586.0	4,266.4	4,946.8
115	0.0369	11.74	-2.86	3,072.9	3,690.5	4,308.2
120	0.0320	12.53	-2.79	2,642.2	3,203.8	3,765.4
125	0.0279	13.33	-2.72	2,279.4	2,790.9	3,302.4
130	0.0244	14.13	-2.66	1,972.8	2,439.3	2,905.9
135	0.0214	14.93	-2.59	1,712.7	2,138.9	2,565.2
140	0.0188	15.73	-2.53	1,491.4	1,881.4	2,271.4
145	0.0166	16.53	-2.47	1,302.5	1,659.9	2,017.3
150	0.0147	17.33	-2.42	1,140.8	1,468.8	1,796.8