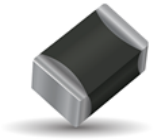
NB12P00104KBB

(0805, 100 kOhm ±10%, 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)	±10%
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

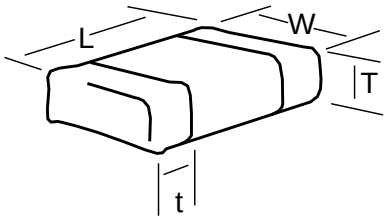
MSL 1
Pb Free 260°C

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	K	BB
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	7,910,389	12,138,140	16,365,892
-50	83.35	21.45	-7.32	5,713,239	8,334,699	10,956,160
-45	57.92	18.44	-7.09	4,144,763	5,792,400	7,440,036
-40	40.72	15.77	-6.87	3,022,963	4,072,416	5,121,868
-35	28.95	13.39	-6.66	2,217,885	2,895,177	3,572,469
-30	20.80	11.29	-6.45	1,637,521	2,080,373	2,523,225
-25	15.10	9.42	-6.26	1,216,975	1,510,332	1,803,690
-20	11.07	7.78	-6.07	910,506	1,107,387	1,304,268
-15	8.197	6.33	-5.89	685,829	819,709	953,589
-10	6.123	5.07	-5.71	520,092	612,348	704,603
-5	4.615	3.96	-5.54	397,061	461,493	525,925
0	3.508	3.00	-5.38	305,151	350,768	396,385
5	2.688	2.18	-5.22	236,052	268,797	301,541
10	2.076	1.48	-5.07	183,775	207,610	231,444
15	1.616	0.89	-4.92	143,977	161,571	179,166
20	1.267	0.40	-4.78	113,492	126,664	139,836
25	1.000	0.00	-4.64	90,000	100,000	110,000
30	0.7949	0.38	-4.51	71,232	79,486	87,741
35	0.6359	0.82	-4.38	56,712	63,595	70,477
40	0.5120	1.31	-4.26	45,412	51,202	56,992
45	0.4148	1.84	-4.14	36,567	41,476	46,385
50	0.3379	2.40	-4.03	29,603	33,794	37,985
55	0.2769	3.00	-3.92	24,091	27,691	31,291
60	0.2281	3.63	-3.81	19,705	22,814	25,924
65	0.1890	4.28	-3.71	16,196	18,895	21,595
70	0.1573	4.96	-3.61	13,375	15,729	18,083
75	0.1316	5.66	-3.52	11,097	13,158	15,218
80	0.1106	6.38	-3.42	9,247.0	11,058	12,870
85	0.0934	7.11	-3.34	7,738.9	9,336.7	10,935
90	0.0792	7.86	-3.25	6,503.6	7,917.8	9,332.0
95	0.0674	8.62	-3.17	5,487.6	6,743.1	7,998.6
100	0.0577	9.39	-3.09	4,648.3	5,766.3	6,884.2
105	0.0495	10.16	-3.01	3,952.3	4,950.5	5,948.7
110	0.0427	10.95	-2.93	3,372.7	4,266.4	5,160.2
115	0.0369	11.74	-2.86	2,888.3	3,690.5	4,492.7
120	0.0320	12.53	-2.79	2,482.0	3,203.8	3,925.6
125	0.0279	13.33	-2.72	2,139.8	2,790.9	3,441.9
130	0.0244	14.13	-2.66	1,850.8	2,439.3	3,027.9
135	0.0214	14.93	-2.59	1,605.8	2,138.9	2,672.1
140	0.0188	15.73	-2.53	1,397.4	1,881.4	2,365.5
145	0.0166	16.53	-2.47	1,219.5	1,659.9	2,100.3
150	0.0147	17.33	-2.42	1,067.4	1,468.8	1,870.2