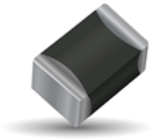
NB12P00104HBF

(0805, 100 kOhm ±3%, 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)	±3%
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

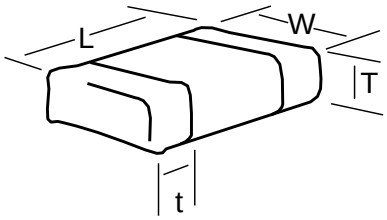
MSL 1
Pb Free
260°C

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	H	BF
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	8,760,059	12,138,140	15,516,222
-50	83.35	21.45	-7.32	6,296,668	8,334,699	10,372,731
-45	57.92	18.44	-7.09	4,550,231	5,792,400	7,034,568
-40	40.72	15.77	-6.87	3,308,032	4,072,416	4,836,799
-35	28.95	13.39	-6.66	2,420,547	2,895,177	3,369,806
-30	20.80	11.29	-6.45	1,783,147	2,080,373	2,377,599
-25	15.10	9.42	-6.26	1,322,698	1,510,332	1,697,966
-20	11.07	7.78	-6.07	988,023	1,107,387	1,226,751
-15	8.197	6.33	-5.89	743,208	819,709	896,210
-10	6.123	5.07	-5.71	562,956	612,348	661,739
-5	4.615	3.96	-5.54	429,366	461,493	493,621
0	3.508	3.00	-5.38	329,705	350,768	371,831
5	2.688	2.18	-5.22	254,868	268,797	282,726
10	2.076	1.48	-5.07	198,308	207,610	216,911
15	1.616	0.89	-4.92	155,287	161,571	167,856
20	1.267	0.40	-4.78	122,359	126,664	130,969
25	1.000	0.00	-4.64	97,000	100,000	103,000
30	0.7949	0.38	-4.51	76,796	79,486	82,177
35	0.6359	0.82	-4.38	61,164	63,595	66,026
40	0.5120	1.31	-4.26	48,997	51,202	53,408
45	0.4148	1.84	-4.14	39,470	41,476	43,481
50	0.3379	2.40	-4.03	31,969	33,794	35,619
55	0.2769	3.00	-3.92	26,030	27,691	29,353
60	0.2281	3.63	-3.81	21,302	22,814	24,327
65	0.1890	4.28	-3.71	17,519	18,895	20,272
70	0.1573	4.96	-3.61	14,476	15,729	16,982
75	0.1316	5.66	-3.52	12,018	13,158	14,297
80	0.1106	6.38	-3.42	10,021	11,058	12,096
85	0.0934	7.11	-3.34	8,392.4	9,336.7	10,281
90	0.0792	7.86	-3.25	7,057.9	7,917.8	8,777.7
95	0.0674	8.62	-3.17	5,959.6	6,743.1	7,526.6
100	0.0577	9.39	-3.09	5,052.0	5,766.3	6,480.5
105	0.0495	10.16	-3.01	4,298.8	4,950.5	5,602.2
110	0.0427	10.95	-2.93	3,671.4	4,266.4	4,861.5
115	0.0369	11.74	-2.86	3,146.7	3,690.5	4,234.4
120	0.0320	12.53	-2.79	2,706.2	3,203.8	3,701.4
125	0.0279	13.33	-2.72	2,335.2	2,790.9	3,246.6
130	0.0244	14.13	-2.66	2,021.5	2,439.3	2,857.1
135	0.0214	14.93	-2.59	1,755.5	2,138.9	2,522.4
140	0.0188	15.73	-2.53	1,529.1	1,881.4	2,233.8
145	0.0166	16.53	-2.47	1,335.7	1,659.9	1,984.1
150	0.0147	17.33	-2.42	1,170.2	1,468.8	1,767.4