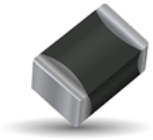
NB12P00124KBF

(0805, 120 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	120 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

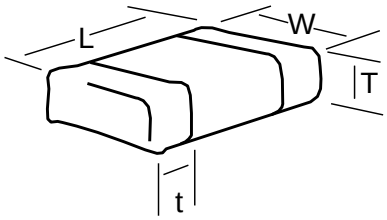
MSL 1
Pb Free
260°C

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	0124	K	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	9,492,467	14,565,769	19,639,070
-50	83.35	21.45	-7.32	6,855,887	10,001,639	13,147,392
-45	57.92	18.44	-7.09	4,973,715	6,950,879	8,928,043
-40	40.72	15.77	-6.87	3,627,556	4,886,899	6,146,242
-35	28.95	13.39	-6.66	2,661,462	3,474,212	4,286,963
-30	20.80	11.29	-6.45	1,965,025	2,496,447	3,027,870
-25	15.10	9.42	-6.26	1,460,370	1,812,399	2,164,427
-20	11.07	7.78	-6.07	1,092,607	1,328,865	1,565,122
-15	8.197	6.33	-5.89	822,995	983,651	1,144,307
-10	6.123	5.07	-5.71	624,110	734,817	845,524
-5	4.615	3.96	-5.54	476,474	553,792	631,111
0	3.508	3.00	-5.38	366,181	420,921	475,662
5	2.688	2.18	-5.22	283,263	322,556	361,850
10	2.076	1.48	-5.07	220,530	249,132	277,733
15	1.616	0.89	-4.92	172,773	193,886	214,999
20	1.267	0.40	-4.78	136,191	151,997	167,803
25	1.000	0.00	-4.64	108,000	120,000	132,000
30	0.7949	0.38	-4.51	85,478	95,383	105,289
35	0.6359	0.82	-4.38	68,055	76,314	84,573
40	0.5120	1.31	-4.26	54,495	61,443	68,391
45	0.4148	1.84	-4.14	43,880	49,771	55,662
50	0.3379	2.40	-4.03	35,524	40,553	45,582
55	0.2769	3.00	-3.92	28,910	33,229	37,549
60	0.2281	3.63	-3.81	23,646	27,377	31,109
65	0.1890	4.28	-3.71	19,435	22,674	25,913
70	0.1573	4.96	-3.61	16,050	18,875	21,699
75	0.1316	5.66	-3.52	13,316	15,789	18,262
80	0.1106	6.38	-3.42	11,096	13,270	15,444
85	0.0934	7.11	-3.34	9,286.6	11,204	13,122
90	0.0792	7.86	-3.25	7,804.4	9,501.4	11,198
95	0.0674	8.62	-3.17	6,585.1	8,091.7	9,598.3
100	0.0577	9.39	-3.09	5,578.0	6,919.5	8,261.0
105	0.0495	10.16	-3.01	4,742.7	5,940.6	7,138.5
110	0.0427	10.95	-2.93	4,047.3	5,119.7	6,192.2
115	0.0369	11.74	-2.86	3,466.0	4,428.6	5,391.3
120	0.0320	12.53	-2.79	2,978.4	3,844.6	4,710.8
125	0.0279	13.33	-2.72	2,567.8	3,349.1	4,130.3
130	0.0244	14.13	-2.66	2,220.9	2,927.2	3,633.4
135	0.0214	14.93	-2.59	1,926.9	2,566.7	3,206.6
140	0.0188	15.73	-2.53	1,676.8	2,257.7	2,838.6
145	0.0166	16.53	-2.47	1,463.4	1,991.9	2,520.4
150	0.0147	17.33	-2.42	1,280.8	1,762.6	2,244.3