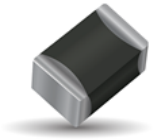
NB12Q00224KBF

(0805, 220 kOhm ±10%, 4300K, 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	220 kOhm
Tolerance on Resistance (25°C)	±10%
B 25/85	4300K±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

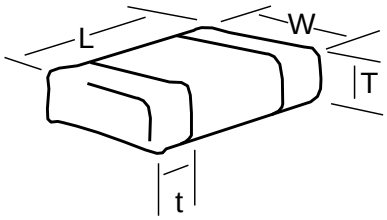
MSL 1
Pb Free
260°C

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	Q0	0224	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

Q0 (B25/85 = 4300K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
4221 K	4281 K	4300 K	4325 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	98.04	25.30	-6.87	13,955,353	21,569,466	29,183,578
-50	69.53	21.86	-6.70	10,422,728	15,295,719	20,168,711
-45	49.73	18.79	-6.53	7,790,487	10,940,777	14,091,067
-40	35.87	16.07	-6.37	5,834,343	7,891,537	9,948,731
-35	26.08	13.65	-6.22	4,381,562	5,738,588	7,095,615
-30	19.12	11.50	-6.07	3,301,756	4,206,104	5,110,452
-25	14.12	9.60	-5.92	2,497,698	3,106,658	3,715,618
-20	10.51	7.93	-5.78	1,897,415	2,311,839	2,726,262
-15	7.877	6.45	-5.64	1,447,844	1,732,960	2,018,076
-10	5.947	5.16	-5.50	1,109,935	1,308,297	1,506,658
-5	4.521	4.04	-5.37	854,963	994,567	1,134,171
0	3.460	3.06	-5.24	661,773	761,199	860,625
5	2.666	2.22	-5.11	514,762	586,444	658,126
10	2.067	1.51	-4.99	402,394	454,726	507,058
15	1.613	0.91	-4.87	316,117	354,814	393,511
20	1.266	0.41	-4.75	249,568	278,557	307,545
25	1.000	0.00	-4.63	198,000	220,000	242,000
30	0.7944	0.39	-4.52	156,608	174,769	192,931
35	0.6347	0.84	-4.41	124,497	139,630	154,764
40	0.5099	1.33	-4.30	99,465	112,177	124,890
45	0.4119	1.87	-4.20	79,855	90,611	101,367
50	0.3344	2.45	-4.09	64,420	73,578	82,736
55	0.2730	3.06	-3.99	52,213	60,055	67,896
60	0.2239	3.70	-3.90	42,515	49,263	56,011
65	0.1846	4.37	-3.80	34,775	40,609	46,443
70	0.1529	5.06	-3.71	28,570	33,634	38,699
75	0.1272	5.77	-3.62	23,573	27,987	32,401
80	0.1063	6.50	-3.53	19,533	23,393	27,253
85	0.0893	7.25	-3.44	16,252	19,639	23,027
90	0.0753	8.01	-3.36	13,576	16,558	19,540
95	0.0637	8.78	-3.28	11,386	14,019	16,651
100	0.0542	9.57	-3.20	9,585.0	11,916	14,248
105	0.0462	10.36	-3.13	8,099.3	10,169	12,240
110	0.0396	11.15	-3.05	6,868.8	8,711.8	10,555
115	0.0340	11.96	-2.98	5,845.9	7,490.8	9,135.7
120	0.0294	12.77	-2.91	4,992.5	6,464.2	7,936.0
125	0.0254	13.58	-2.84	4,277.9	5,597.9	6,917.9
130	0.0221	14.39	-2.77	3,677.6	4,864.2	6,050.8
135	0.0193	15.21	-2.71	3,171.6	4,240.7	5,309.8
140	0.0169	16.03	-2.64	2,743.7	3,709.1	4,674.4
145	0.0148	16.84	-2.58	2,380.7	3,254.2	4,127.8
150	0.0130	17.66	-2.52	2,071.7	2,863.8	3,655.9