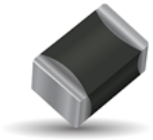
NB21L00223KBD

(0603, 22 kOhm ±10%, 3790K, 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	0603
Operating temperature	-55°C to +150°C
Resistance	22 kOhm
Tolerance on Resistance (25°C)	±10%
B 25/85	3790K±3%
Maximum dissipation at 25°C	0.07 W
Thermal dissipation factor	1 mW/°C
Thermal time constant	4 s
Termination	Ni barrier/100%Sn (for Pb free soldering)

RoHS COMPLIANT

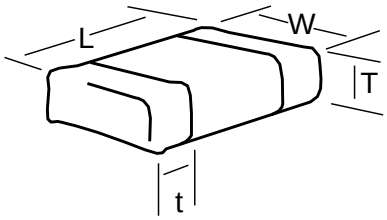
MSL 1
Pb Free
260°C

AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0603	1.6±0.2	0.8±0.2	1.0 max	0.2 min
	(0.063±0.008)	(0.031±0.008)	(0.039) max	(0.008) min



How to Order (Packaging options)

NB	21	L0	0223	K	BD
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NB = Ni/Sn Term for lead free soldering	21 = 0603	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

L0 (B25/85 = 3790K±3%)

B25/50	B25/75	B25/85	B25/100	B Tol
3765 K	3784 K	3790 K	3798 K	±3%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	82.54	22.30	-7.12	1,229,400	1,815,946	2,402,492
-50	58.03	19.27	-6.87	902,989	1,276,600	1,650,210
-45	41.31	16.57	-6.63	667,317	908,718	1,150,119
-40	29.75	14.16	-6.40	496,431	654,599	812,767
-35	21.68	12.03	-6.18	371,869	476,932	581,994
-30	15.97	10.14	-5.98	280,540	351,276	422,012
-25	11.88	8.46	-5.78	213,155	261,421	309,687
-20	8.931	6.99	-5.59	163,110	196,485	229,861
-15	6.777	5.69	-5.40	125,697	149,084	172,471
-10	5.188	4.55	-5.23	97,538	114,146	130,754
-5	4.007	3.56	-5.06	76,203	88,155	100,107
0	3.120	2.70	-4.90	59,932	68,649	77,367
5	2.449	1.96	-4.75	47,440	53,885	60,329
10	1.937	1.33	-4.60	37,790	42,618	47,447
15	1.543	0.80	-4.46	30,287	33,953	37,620
20	1.238	0.36	-4.33	24,418	27,240	30,061
25	1.000	0.00	-4.20	19,800	22,000	24,200
30	0.8128	0.35	-4.07	16,033	17,883	19,733
35	0.6648	0.74	-3.95	13,055	14,625	16,196
40	0.5469	1.17	-3.84	10,688	12,032	13,377
45	0.4525	1.65	-3.73	8,796	9,955	11,115
50	0.3764	2.16	-3.62	7,275	8,282	9,289
55	0.3148	2.69	-3.52	6,047	6,926	7,805
60	0.2646	3.26	-3.42	5,049	5,821	6,593
65	0.2235	3.85	-3.33	4,235	4,916	5,597
70	0.1896	4.46	-3.24	3,568	4,171	4,774
75	0.1616	5.09	-3.15	3,019	3,555	4,091
80	0.1383	5.73	-3.07	2,564	3,043	3,522
85	0.1189	6.39	-2.98	2,187	2,616	3,044
90	0.1026	7.06	-2.91	1,872	2,257	2,642
95	0.0889	7.74	-2.83	1,608	1,955	2,302
100	0.0773	8.43	-2.76	1,387	1,700	2,014
105	0.0674	9.13	-2.69	1,200	1,484	1,767
110	0.0590	9.83	-2.62	1,041	1,299	1,557
115	0.0519	10.54	-2.56	906.9	1,141	1,376
120	0.0457	11.25	-2.49	792.1	1,006	1,220
125	0.0404	11.97	-2.43	693.9	889.3	1,085
130	0.0358	12.69	-2.37	609.7	788.6	967.5
135	0.0319	13.41	-2.32	537.2	701.3	865.5
140	0.0284	14.13	-2.26	474.5	625.4	776.3
145	0.0254	14.85	-2.21	420.3	559.2	698.2
150	0.0228	15.57	-2.16	373.2	501.4	629.6