

## NTC SMD Thermistor with Ni/Sn termination

for Automotive, Industrial and General applications

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**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	1206
Operating temperature	-55°C to +150°C
Resistance	22 kOhm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	3790K $\pm 3\%$
Maximum dissipation at 25°C	0.24 W
Thermal dissipation factor	4 mW/°C
Thermal time constant	7 s
Termination	Ni barrier/100%Sn (for Pb free soldering)



MSL 1  
Pb Free  
260°C



AEC-Q200  
based qualification

## Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
1206	3.2 $\pm 0.4$	1.6 $\pm 0.25$	1.5 max	0.2 min
	(0.126 $\pm 0.016$ )	(0.063 $\pm 0.01$ )	(0.059) max	(0.008) min



## How to Order (Packaging options)

<b>NB</b>	<b>20</b>	<b>L0</b>	<b>0223</b>	<b>J</b>	<b>BA</b>
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	20 = 1206	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BA = Plastic tape (180mm reel, 3,000 pcs/reel) BE = Plastic tape (180mm reel, 1,500 pcs/reel) BC = Plastic 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 believed 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 $\pm 3\%$ )

T (°C)	R(T) / R25	TF (%)	$\alpha$ (%/°C)
-55	82.54	22.30	-7.12
-50	58.03	19.27	-6.87
-45	41.31	16.57	-6.63
-40	29.75	14.16	-6.40
-35	21.68	12.03	-6.18
-30	15.97	10.14	-5.98
-25	11.88	8.46	-5.78
-20	8.931	6.99	-5.59
-15	6.777	5.69	-5.40
-10	5.188	4.55	-5.23
-5	4.007	3.56	-5.06
0	3.120	2.70	-4.90
5	2.449	1.96	-4.75
10	1.937	1.33	-4.60
15	1.543	0.80	-4.46
20	1.238	0.36	-4.33
25	1.000	0.00	-4.20
30	0.8128	0.35	-4.07
35	0.6648	0.74	-3.95
40	0.5469	1.17	-3.84
45	0.4525	1.65	-3.73
50	0.3764	2.16	-3.62
55	0.3148	2.69	-3.52
60	0.2646	3.26	-3.42
65	0.2235	3.85	-3.33
70	0.1896	4.46	-3.24
75	0.1616	5.09	-3.15
80	0.1383	5.73	-3.07
85	0.1189	6.39	-2.98
90	0.1026	7.06	-2.91
95	0.0889	7.74	-2.83
100	0.0773	8.43	-2.76
105	0.0674	9.13	-2.69
110	0.0590	9.83	-2.62
115	0.0519	10.54	-2.56
120	0.0457	11.25	-2.49
125	0.0404	11.97	-2.43
130	0.0358	12.69	-2.37
135	0.0319	13.41	-2.32
140	0.0284	14.13	-2.26
145	0.0254	14.85	-2.21
150	0.0228	15.57	-2.16

B25/50	B25/75	B25/85	B25/100	B Tol
3765 K	3784 K	3790 K	3798 K	$\pm 3\%$

R Min ( $\Omega$ )	R Nom ( $\Omega$ )	R Max ( $\Omega$ )
1,320,197	1,815,946	2,311,695
966,819	1,276,600	1,586,380
712,753	908,718	1,104,683
529,160	654,599	780,037
395,716	476,932	558,147
298,104	351,276	404,448
226,226	261,421	296,616
172,934	196,485	220,036
133,151	149,084	165,017
103,245	114,146	125,046
80,611	88,155	95,700
63,364	68,649	73,934
50,135	53,885	57,635
39,921	42,618	45,316
31,985	33,953	35,922
25,780	27,240	28,699
20,900	22,000	23,100
16,927	17,883	18,838
13,786	14,625	15,465
11,289	12,032	12,775
9,293.5	9,955.3	10,617
7,689.2	8,281.8	8,874.5
6,392.9	6,925.8	7,458.7
5,340.2	5,821.0	6,301.7
4,481.1	4,916.1	5,351.1
3,776.7	4,171.2	4,565.8
3,196.5	3,555.1	3,913.7
2,716.5	3,043.1	3,369.6
2,317.7	2,615.6	2,913.5
1,985.0	2,257.2	2,529.4
1,706.2	1,955.3	2,204.5
1,471.8	1,700.2	1,928.5
1,274.0	1,483.6	1,693.2
1,106.4	1,299.1	1,491.8
963.9	1,141.3	1,318.7
842.4	1,005.9	1,169.4
738.4	889.3	1,040.2
649.1	788.6	928.1
572.2	701.3	830.4
505.8	625.4	745.0
448.3	559.2	670.2
398.3	501.4	604.5