

## 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	15 kOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
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>0153</b>	<b>M</b>	<b>BE</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 ( $\Omega$ )
714,413	1,238,145	1,761,877
528,634	870,409	1,212,184
393,031	619,580	846,130
293,844	446,317	598,791
221,029	325,181	429,332
167,327	239,506	311,686
127,508	178,241	228,974
97,815	133,967	170,120
75,537	101,648	127,759
58,721	77,827	96,933
45,946	60,106	74,266
36,182	46,806	57,431
28,672	36,740	44,807
22,860	29,058	35,256
18,335	23,150	27,965
14,791	18,572	22,354
12,000	15,000	18,000
9,712.0	12,193	14,673
7,903.8	9,971.9	12,040
6,466.8	8,203.9	9,941.0
5,318.3	6,787.7	8,257.2
4,395.6	5,646.7	6,897.8
3,650.5	4,722.1	5,793.8
3,045.7	3,968.8	4,892.0
2,552.5	3,351.9	4,151.3
2,148.4	2,844.0	3,539.6
1,815.9	2,423.9	3,032.0
1,541.0	2,074.8	2,608.7
1,312.8	1,783.4	2,254.0
1,122.5	1,539.0	1,955.4
963.4	1,333.2	1,703.0
829.6	1,159.2	1,488.8
716.9	1,011.5	1,306.2
621.5	885.7	1,150.0
540.5	778.2	1,015.8
471.5	685.8	900.2
412.5	606.4	800.2
361.9	537.7	713.4
318.4	478.2	637.9
280.9	426.4	571.9
248.4	381.3	514.2
220.3	341.9	463.4