

## 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	39 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	3950K $\pm 3\%$
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 WWWW

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>M0</b>	<b>0393</b>	<b>K</b>	<b>--</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

**M0 (B25/85 = 3950K $\pm 3\%$ )**

T (°C)	R(T) / R25	TF (%)	$\alpha$ (%/°C)
-55	99.59	15.64	-7.42
-50	68.97	14.25	-7.16
-45	48.40	12.94	-6.91
-40	34.38	11.69	-6.67
-35	24.71	10.51	-6.45
-30	17.97	9.39	-6.23
-25	13.20	8.33	-6.02
-20	9.804	7.31	-5.82
-15	7.352	6.35	-5.63
-10	5.565	5.43	-5.45
-5	4.251	4.55	-5.28
0	3.275	3.70	-5.11
5	2.544	2.90	-4.95
10	1.992	2.13	-4.80
15	1.572	1.39	-4.65
20	1.249	0.68	-4.51
25	1.000	0.00	-4.38
30	0.8057	0.66	-4.25
35	0.6534	1.30	-4.12
40	0.5331	1.92	-4.00
45	0.4376	2.53	-3.89
50	0.3612	3.12	-3.77
55	0.2998	3.70	-3.67
60	0.2501	4.26	-3.57
65	0.2097	4.81	-3.47
70	0.1767	5.35	-3.37
75	0.1496	5.87	-3.28
80	0.1272	6.38	-3.19
85	0.1087	6.88	-3.11
90	0.0932	7.37	-3.03
95	0.0803	7.84	-2.95
100	0.0694	8.31	-2.87
105	0.0602	8.76	-2.80
110	0.0524	9.21	-2.73
115	0.0458	9.64	-2.66
120	0.0402	10.07	-2.60
125	0.0353	10.48	-2.53
130	0.0312	10.89	-2.47
135	0.0276	11.29	-2.41
140	0.0245	11.68	-2.36
145	0.0218	12.06	-2.30
150	0.0194	12.43	-2.25

B25/50	B25/75	B25/85	B25/100	B Tol
3925 K	3944 K	3950 K	3958 K	$\pm 3\%$

R Min ( $\Omega$ )	R Nom ( $\Omega$ )	R Max ( $\Omega$ )
2,888,241	3,884,018	4,879,795
2,037,659	2,690,002	3,342,346
1,454,472	1,887,409	2,320,346
1,049,913	1,340,794	1,631,675
766,092	963,820	1,161,548
564,808	700,707	836,605
420,563	514,948	609,333
316,154	382,358	448,563
239,848	286,722	333,595
183,562	217,043	250,525
141,673	165,788	189,903
110,230	127,735	145,240
86,434	99,234	112,034
68,281	77,705	87,129
54,328	61,311	68,294
43,525	48,729	53,933
35,100	39,000	42,900
28,074	31,423	34,772
22,602	25,481	28,360
18,312	20,791	23,270
14,926	17,065	19,203
12,238	14,086	15,934
10,089	11,691	13,292
8,362.9	9,754.1	11,145
6,967.9	8,179.4	9,391.0
5,834.5	6,892.3	7,950.1
4,908.9	5,834.9	6,761.0
4,149.2	4,962.0	5,774.9
3,522.6	4,238.0	4,953.4
3,003.5	3,634.7	4,266.0
2,571.4	3,129.9	3,688.4
2,210.3	2,705.6	3,201.0
1,907.1	2,347.6	2,788.1
1,651.7	2,044.3	2,436.9
1,435.5	1,786.4	2,137.2
1,251.9	1,566.2	1,880.5
1,095.5	1,377.6	1,659.8
961.6	1,215.5	1,469.4
846.8	1,075.8	1,304.7
747.9	954.8	1,161.8
662.4	849.9	1,037.3
588.4	758.5	928.7