

## 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	680 kOhm
Tolerance on Resistance (25°C)	$\pm 10\%$
B 25/85	4400K $\pm 3\%$
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>R0</b>	<b>0684</b>	<b>K</b>	<b>BC</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

R0 (B25/85 = 4400K $\pm 3\%$ )

T (°C)	R(T) / R25	TF (%)	$\alpha$ (%/°C)
-55	113.9	25.89	-7.13
-50	79.71	22.37	-6.95
-45	56.30	19.23	-6.77
-40	40.13	16.44	-6.60
-35	28.85	13.96	-6.44
-30	20.92	11.77	-6.28
-25	15.29	9.82	-6.12
-20	11.27	8.11	-5.97
-15	8.368	6.60	-5.82
-10	6.261	5.28	-5.68
-5	4.719	4.13	-5.53
0	3.583	3.13	-5.40
5	2.739	2.27	-5.26
10	2.108	1.54	-5.13
15	1.634	0.93	-5.00
20	1.274	0.42	-4.88
25	1.000	0.00	-4.75
30	0.7897	0.40	-4.64
35	0.6273	0.86	-4.52
40	0.5012	1.36	-4.41
45	0.4028	1.91	-4.30
50	0.3255	2.50	-4.19
55	0.2644	3.13	-4.09
60	0.2159	3.78	-3.98
65	0.1772	4.47	-3.89
70	0.1462	5.18	-3.79
75	0.1212	5.90	-3.70
80	0.1009	6.65	-3.60
85	0.0844	7.42	-3.52
90	0.0709	8.20	-3.43
95	0.0598	8.99	-3.35
100	0.0507	9.79	-3.26
105	0.0431	10.60	-3.19
110	0.0369	11.41	-3.11
115	0.0316	12.24	-3.03
120	0.0272	13.06	-2.96
125	0.0235	13.89	-2.89
130	0.0204	14.73	-2.82
135	0.0177	15.56	-2.76
140	0.0154	16.40	-2.69
145	0.0135	17.23	-2.63
150	0.0119	18.07	-2.57

B25/50	B25/75	B25/85	B25/100	B Tol
4326 K	4382 K	4400 K	4423 K	$\pm 3\%$

R Min ( $\Omega$ )	R Nom ( $\Omega$ )	R Max ( $\Omega$ )
49,646,729	77,436,961	105,227,193
36,657,786	54,200,067	71,742,348
27,095,797	38,287,212	49,478,627
20,073,512	27,289,084	34,504,657
14,917,999	19,619,678	24,321,356
11,128,619	14,225,102	17,321,585
8,337,183	10,398,678	12,460,174
6,274,717	7,662,380	9,050,044
4,745,414	5,690,101	6,634,788
3,606,920	4,257,538	4,908,157
2,755,714	3,209,182	3,662,651
2,116,416	2,436,381	2,756,346
1,634,015	1,862,651	2,091,287
1,268,252	1,433,757	1,599,262
989,570	1,110,969	1,232,368
776,189	866,437	956,685
612,000	680,000	748,000
481,116	536,966	592,816
380,248	426,561	472,875
302,105	340,836	379,567
241,257	273,887	306,517
193,637	221,307	248,978
156,183	179,785	203,387
126,581	146,818	167,056
103,074	120,508	137,942
84,319	99,403	114,488
69,286	82,390	95,494
57,184	68,609	80,034
47,397	57,393	67,389
39,449	48,223	56,997
32,967	40,692	48,418
27,659	34,481	41,304
23,295	29,337	35,380
19,693	25,059	30,425
16,708	21,486	26,264
14,226	18,491	22,756
12,155	15,971	19,788
10,420	13,843	17,266
8,961.6	12,039	15,117
7,731.8	10,505	13,278
6,691.3	9,195.7	11,700
5,808.1	8,074.6	10,341