

## 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	820 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>0824</b>	<b>K</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

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 ( $\Omega$ )
59,868,114	93,379,865	126,891,615
44,204,977	65,358,904	86,512,831
32,674,343	46,169,873	59,665,403
24,206,294	32,907,425	41,608,556
17,989,352	23,659,023	29,328,694
13,419,806	17,153,799	20,887,793
10,053,662	12,539,583	15,025,503
7,566,570	9,239,929	10,913,289
5,722,411	6,861,592	8,000,774
4,349,521	5,134,090	5,918,660
3,323,067	3,869,896	4,416,726
2,552,149	2,937,989	3,323,829
1,970,430	2,246,138	2,521,846
1,529,363	1,728,942	1,928,522
1,193,305	1,339,698	1,486,091
935,993	1,044,821	1,153,650
738,000	820,000	902,000
580,169	647,518	714,866
458,534	514,383	570,232
364,303	411,008	457,713
290,928	330,276	369,624
233,503	266,871	300,238
188,338	216,799	245,261
152,642	177,046	201,449
124,295	145,319	166,342
101,678	119,869	138,059
83,551	99,353	115,154
68,957	82,734	96,511
57,155	69,209	81,263
47,570	58,151	68,732
39,754	49,070	58,387
33,353	41,581	49,808
28,091	35,377	42,664
23,747	30,218	36,688
20,148	25,910	31,671
17,155	22,298	27,441
14,657	19,259	23,862
12,565	16,693	20,821
10,807	14,518	18,229
9,323.7	12,668	16,012
8,068.9	11,089	14,109
7,003.9	9,737.1	12,470