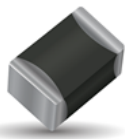


## NTC SMD Thermistor with Ni/Sn termination

for Automotive, Industrial and General applications

To view data online visit:

**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	0603
Operating temperature	-55°C to +150°C
Resistance	50 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	4000K $\pm 3\%$
Maximum dissipation at 25°C	0.07 W
Thermal dissipation factor	1 mW/°C
Thermal time constant	4 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)
0603	1.6 $\pm 0.2$	0.8 $\pm 0.2$	1.0 max	0.2 min
	(0.063 $\pm 0.008$ )	(0.031 $\pm 0.008$ )	(0.039) max	(0.008) min



## How to Order (Packaging options)

<b>NB</b>	<b>21</b>	<b>M4</b>	<b>0503</b>	<b>H</b>	<b>--</b>
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	21 = 0603	See Datasheet	2 Sig. Digits + Number of Zeros	H = $\pm 3\%*$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BB = Cardboard tape (180mm reel, 4,000 pcs/reel) BF = Cardboard tape (180mm reel, 2,000 pcs/reel) BD = Cardboard 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

### M4 (B25/85 = 4000K $\pm 3\%$ )

T (°C)	R(T) / R25	TF (%)	$\alpha$ (%/°C)
-55	98.22	23.50	-7.38
-50	68.17	20.31	-7.12
-45	47.92	17.46	-6.88
-40	34.11	14.93	-6.64
-35	24.57	12.68	-6.42
-30	17.89	10.68	-6.20
-25	13.17	8.92	-6.00
-20	9.790	7.36	-5.80
-15	7.349	5.99	-5.62
-10	5.568	4.80	-5.44
-5	4.256	3.75	-5.27
0	3.280	2.84	-5.11
5	2.549	2.07	-4.95
10	1.996	1.40	-4.80
15	1.574	0.84	-4.66
20	1.250	0.38	-4.52
25	1.000	0.00	-4.39
30	0.8049	0.36	-4.27
35	0.6519	0.78	-4.15
40	0.5311	1.24	-4.03
45	0.4352	1.74	-3.92
50	0.3586	2.27	-3.81
55	0.2970	2.84	-3.71
60	0.2472	3.44	-3.61
65	0.2068	4.06	-3.52
70	0.1738	4.70	-3.42
75	0.1468	5.36	-3.34
80	0.1245	6.04	-3.25
85	0.1060	6.73	-3.17
90	0.0906	7.44	-3.09
95	0.0778	8.16	-3.01
100	0.0670	8.89	-2.94
105	0.0579	9.62	-2.87
110	0.0503	10.36	-2.80
115	0.0438	11.11	-2.74
120	0.0382	11.86	-2.67
125	0.0335	12.62	-2.61
130	0.0294	13.37	-2.55
135	0.0259	14.13	-2.49
140	0.0229	14.89	-2.44
145	0.0203	15.65	-2.38
150	0.0181	16.41	-2.33

B25/50	B25/75	B25/85	B25/100	B Tol
3953 K	3984 K	4000 K	4010 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
3,609,363	4,910,981	6,212,599
2,613,903	3,408,255	4,202,607
1,905,965	2,396,227	2,886,489
1,399,819	1,705,590	2,011,361
1,035,732	1,228,313	1,420,895
772,102	894,510	1,016,918
579,894	658,373	736,852
438,771	489,500	540,229
334,419	367,471	400,523
256,711	278,414	300,117
198,438	212,802	227,167
154,439	164,025	173,611
120,991	127,447	133,903
95,397	99,789	104,182
75,686	78,710	81,734
60,411	62,523	64,634
48,500	50,000	51,500
38,891	40,245	41,599
31,363	32,595	33,826
25,431	26,556	27,681
20,729	21,760	22,791
16,983	17,928	18,874
13,982	14,850	15,717
11,566	12,362	13,158
9,612	10,341	11,071
8,023	8,692	9,361
6,725	7,338	7,952
5,660	6,223	6,785
4,783	5,299	5,814
4,057	4,530	5,003
3,454	3,888	4,322
2,952	3,350	3,748
2,531	2,896	3,262
2,177	2,513	2,849
1,879	2,188	2,497
1,627	1,911	2,195
1,413	1,675	1,936
1,231	1,472	1,713
1,075	1,297	1,520
941.7	1,147	1,352
827.0	1,017	1,206
728.2	903.6	1,079