

## NTC SMD Thermistor with Ni/Sn termination

for Automotive, Industrial and General applications

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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	0805
Operating temperature	-55°C to +150°C
Resistance	8200 Ohm
Tolerance on Resistance (25°C)	$\pm 5\%$
B 25/85	3630K $\pm 3\%$
Maximum dissipation at 25°C	0.12 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	5 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)
0805	2.0 $\pm 0.3$	1.25 $\pm 0.2$	1.3 max	0.2 min
	(0.079 $\pm 0.012$ )	(0.049 $\pm 0.008$ )	(0.051) max	(0.008) min



## How to Order (Packaging options)

<b>NB</b>  <b>Type</b> NB = Ni/Sn Term for lead free soldering	<b>12</b>  <b>Size</b> 12 = 0805	<b>K0</b>  <b>Material Code</b> See Datasheet	<b>0822</b>  <b>Resistance (Ohm)</b> 2 Sig. Digits + Number of Zeros	<b>J</b>  <b>Tolerance</b> H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	<b>BF</b>  <b>Suffix: Packaging</b> 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)
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\* 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

K0 (B25/85 = 3630K $\pm 3\%$ )

T (°C)	R(T) / R25	TF (%)	$\alpha$ (%/°C)
-55	56.27	21.36	-6.25
-50	41.22	18.45	-6.06
-45	30.48	15.86	-5.89
-40	22.74	13.56	-5.71
-35	17.11	11.52	-5.55
-30	12.98	9.71	-5.39
-25	9.931	8.10	-5.24
-20	7.655	6.69	-5.09
-15	5.945	5.45	-4.95
-10	4.651	4.36	-4.81
-5	3.663	3.41	-4.67
0	2.905	2.58	-4.54
5	2.319	1.88	-4.42
10	1.862	1.27	-4.30
15	1.505	0.77	-4.18
20	1.223	0.34	-4.07
25	1.000	0.00	-3.96
30	0.8219	0.33	-3.85
35	0.6792	0.71	-3.75
40	0.5641	1.12	-3.65
45	0.4708	1.58	-3.55
50	0.3949	2.07	-3.46
55	0.3327	2.58	-3.37
60	0.2816	3.12	-3.28
65	0.2393	3.69	-3.20
70	0.2043	4.27	-3.12
75	0.1751	4.87	-3.04
80	0.1506	5.49	-2.96
85	0.1301	6.12	-2.89
90	0.1128	6.76	-2.82
95	0.0981	7.41	-2.75
100	0.0856	8.07	-2.68
105	0.0750	8.74	-2.61
110	0.0659	9.42	-2.55
115	0.0581	10.09	-2.49
120	0.0514	10.78	-2.43
125	0.0455	11.46	-2.37
130	0.0405	12.15	-2.32
135	0.0361	12.84	-2.26
140	0.0323	13.53	-2.21
145	0.0289	14.22	-2.16
150	0.0260	14.91	-2.11

B25/50	B25/75	B25/85	B25/100	B Tol
3581 K	3618 K	3630 K	3646 K	$\pm 3\%$

R Min ( $\Omega$ )	R Nom ( $\Omega$ )	R Max ( $\Omega$ )
339,796	461,404	583,013
258,738	338,002	417,266
197,774	249,917	302,060
151,839	186,450	221,061
117,128	140,306	163,484
90,805	106,464	122,122
70,763	81,434	92,106
55,435	62,773	70,112
43,658	48,751	53,844
34,567	38,135	41,703
27,514	30,039	32,565
22,015	23,821	25,628
17,706	19,014	20,321
14,314	15,272	16,230
11,630	12,341	13,052
9,495.2	10,031	10,567
7,790.0	8,200.0	8,610.0
6,380.6	6,739.9	7,099.2
5,251.3	5,569.2	5,887.0
4,342.1	4,625.4	4,908.7
3,606.7	3,860.6	4,114.6
3,009.0	3,237.8	3,466.5
2,521.2	2,728.0	2,934.8
2,121.3	2,308.8	2,496.3
1,792.0	1,962.5	2,132.9
1,519.8	1,675.1	1,830.4
1,293.9	1,435.6	1,577.3
1,105.7	1,235.2	1,364.8
948.2	1,066.8	1,185.4
816.0	924.8	1,033.5
704.6	804.5	904.4
610.5	702.3	794.1
530.6	615.1	699.6
462.5	540.5	618.4
404.5	476.4	548.3
354.7	421.2	487.6
312.0	373.4	434.9
275.1	332.0	389.0
243.3	296.1	348.9
215.6	264.7	313.7
191.7	237.3	282.8
170.8	213.2	255.6