

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	0805
Operating temperature	-55°C to +150°C
Resistance	15 kOhm
Tolerance on Resistance (25°C)	$\pm 3\%$
B 25/85	3790K $\pm 3\%$
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)



RoHS
COMPLIANT

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 ± 0.3	1.25 ± 0.2	1.3 max	0.2 min
	(0.079 ± 0.012)	(0.049 ± 0.008)	(0.051) max	(0.008) min



How to Order (Packaging options)

NB  Type NB = Ni/Sn Term for lead free soldering	12  Size 12 = 0805	L0  Material Code See Datasheet	0153  Resistance (Ohm) 2 Sig. Digits + Number of Zeros	H  Tolerance H = $\pm 3\%$ * J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	BD  Suffix: Packaging 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

L0 (B25/85 = 3790K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	82.54	22.30	-7.12
-50	58.03	19.27	-6.87
-45	41.31	16.57	-6.63
-40	29.75	14.16	-6.40
-35	21.68	12.03	-6.18
-30	15.97	10.14	-5.98
-25	11.88	8.46	-5.78
-20	8.931	6.99	-5.59
-15	6.777	5.69	-5.40
-10	5.188	4.55	-5.23
-5	4.007	3.56	-5.06
0	3.120	2.70	-4.90
5	2.449	1.96	-4.75
10	1.937	1.33	-4.60
15	1.543	0.80	-4.46
20	1.238	0.36	-4.33
25	1.000	0.00	-4.20
30	0.8128	0.35	-4.07
35	0.6648	0.74	-3.95
40	0.5469	1.17	-3.84
45	0.4525	1.65	-3.73
50	0.3764	2.16	-3.62
55	0.3148	2.69	-3.52
60	0.2646	3.26	-3.42
65	0.2235	3.85	-3.33
70	0.1896	4.46	-3.24
75	0.1616	5.09	-3.15
80	0.1383	5.73	-3.07
85	0.1189	6.39	-2.98
90	0.1026	7.06	-2.91
95	0.0889	7.74	-2.83
100	0.0773	8.43	-2.76
105	0.0674	9.13	-2.69
110	0.0590	9.83	-2.62
115	0.0519	10.54	-2.56
120	0.0457	11.25	-2.49
125	0.0404	11.97	-2.43
130	0.0358	12.69	-2.37
135	0.0319	13.41	-2.32
140	0.0284	14.13	-2.26
145	0.0254	14.85	-2.21
150	0.0228	15.57	-2.16

B25/50	B25/75	B25/85	B25/100	B Tol
3765 K	3784 K	3790 K	3798 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
924,898	1,238,145	1,551,393
676,603	870,409	1,064,215
498,359	619,580	740,801
369,718	446,317	522,917
276,310	325,181	374,051
208,043	239,506	270,970
157,810	178,241	198,673
120,589	133,967	147,345
92,818	101,648	110,478
71,951	77,827	83,702
56,164	60,106	64,048
44,139	46,806	49,474
34,917	36,740	38,562
27,800	29,058	30,316
22,271	23,150	24,029
17,949	18,572	19,196
14,550	15,000	15,450
11,785	12,193	12,601
9,599.1	9,971.9	10,345
7,861.4	8,203.9	8,546.4
6,472.2	6,787.7	7,103.3
5,355.5	5,646.7	5,937.9
4,453.2	4,722.1	4,991.0
3,720.4	3,968.8	4,217.3
3,122.3	3,351.9	3,581.4
2,631.9	2,844.0	3,056.1
2,227.9	2,423.9	2,619.9
1,893.7	2,074.8	2,256.0
1,615.9	1,783.4	1,950.8
1,384.2	1,539.0	1,693.8
1,190.0	1,333.2	1,476.4
1,026.7	1,159.2	1,291.7
888.9	1,011.5	1,134.2
772.1	885.7	999.4
672.8	778.2	883.5
588.1	685.8	783.6
515.6	606.4	697.1
453.3	537.7	622.0
399.7	478.2	556.6
353.4	426.4	499.5
313.3	381.3	449.4
278.4	341.9	405.3