

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	220 kOhm
Tolerance on Resistance (25°C)	$\pm 20\%$
B 25/85	4300K $\pm 3\%$
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

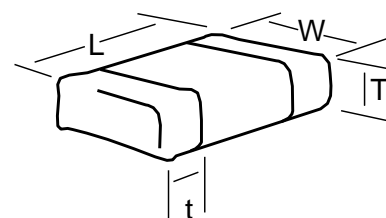


AEC-Q200
based qualification

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.0 ± 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	12	Q0	0224	M	--
Type	Size	Material Code	Resistance (Ohm)	Tolerance	Suffix: Packaging
NB = Ni/Sn Term for lead free soldering	12 = 0805	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

Q0 (B25/85 = 4300K $\pm 3\%$)

T (°C)	R(T) / R25	TF (%)	α (%/°C)
-55	98.04	25.30	-6.87
-50	69.53	21.86	-6.70
-45	49.73	18.79	-6.53
-40	35.87	16.07	-6.37
-35	26.08	13.65	-6.22
-30	19.12	11.50	-6.07
-25	14.12	9.60	-5.92
-20	10.51	7.93	-5.78
-15	7.877	6.45	-5.64
-10	5.947	5.16	-5.50
-5	4.521	4.04	-5.37
0	3.460	3.06	-5.24
5	2.666	2.22	-5.11
10	2.067	1.51	-4.99
15	1.613	0.91	-4.87
20	1.266	0.41	-4.75
25	1.000	0.00	-4.63
30	0.7944	0.39	-4.52
35	0.6347	0.84	-4.41
40	0.5099	1.33	-4.30
45	0.4119	1.87	-4.20
50	0.3344	2.45	-4.09
55	0.2730	3.06	-3.99
60	0.2239	3.70	-3.90
65	0.1846	4.37	-3.80
70	0.1529	5.06	-3.71
75	0.1272	5.77	-3.62
80	0.1063	6.50	-3.53
85	0.0893	7.25	-3.44
90	0.0753	8.01	-3.36
95	0.0637	8.78	-3.28
100	0.0542	9.57	-3.20
105	0.0462	10.36	-3.13
110	0.0396	11.15	-3.05
115	0.0340	11.96	-2.98
120	0.0294	12.77	-2.91
125	0.0254	13.58	-2.84
130	0.0221	14.39	-2.77
135	0.0193	15.21	-2.71
140	0.0169	16.03	-2.64
145	0.0148	16.84	-2.58
150	0.0130	17.66	-2.52

B25/50	B25/75	B25/85	B25/100	B Tol
4221 K	4281 K	4300 K	4325 K	$\pm 3\%$

R Min (Ω)	R Nom (Ω)	R Max (Ω)
11,798,407	21,569,466	31,340,525
8,893,156	15,295,719	21,698,283
6,696,410	10,940,777	15,185,145
5,045,190	7,891,537	10,737,884
3,807,703	5,738,588	7,669,474
2,881,146	4,206,104	5,531,062
2,187,033	3,106,658	4,026,284
1,666,231	2,311,839	2,957,446
1,274,548	1,732,960	2,191,372
979,106	1,308,297	1,637,487
755,506	994,567	1,233,628
585,653	761,199	936,744
456,118	586,444	716,770
356,922	454,726	552,531
280,636	354,814	428,993
221,713	278,557	335,400
176,000	220,000	264,000
139,131	174,769	210,408
110,534	139,630	168,727
88,247	112,177	136,107
70,794	90,611	110,428
57,062	73,578	90,093
46,208	60,055	73,902
37,589	49,263	60,938
30,714	40,609	50,504
25,206	33,634	42,062
20,775	27,987	35,199
17,194	23,393	29,592
14,288	19,639	24,990
11,920	16,558	21,196
9,983.7	14,019	18,053
8,393.4	11,916	15,440
7,082.4	10,169	13,257
5,997.6	8,711.8	11,426
5,096.8	7,490.8	9,884.8
4,346.0	6,464.2	8,582.4
3,718.1	5,597.9	7,477.7
3,191.2	4,864.2	6,537.3
2,747.6	4,240.7	5,733.9
2,372.8	3,709.1	5,045.3
2,055.2	3,254.2	4,453.2
1,785.3	2,863.8	3,942.3