NC12K00103JBB

(0805, 10 kOhm ±5%, 3630 K, AgPdPt Term)

NTC Chip Thermistor Datasheet

BASIC SPECIFICATION

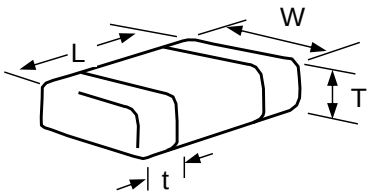
Case Size [EIA]	0805
Operating Temperature	-55 to +150°C
Grade	Automotive & General
Qualification	AEC-Q200 based
Termination	AgPdPt
Assembly	Conductive Adhesive (not for Pb Free Reflow)
RoHS	Yes
MSL Level	1
Packaging	T&R 7in (180mm)
Packaging Qty	4000

AEC-Q200 based Qual | **RoHS Compliant** | **Click for Online Data**

ELECTRICAL CHARACTERISTICS

Resistance [25°C]	10 kOhm
Resistance Tolerance [25°C]	±5%
B Value (25/85)	3630 K
B Value Tolerance	±3%
B Value (25/50)	3581 K
B Value (25/100)	3646 K
Maximum Dissipation [25°C]	0.12 W
Thermal Dissipation Factor	2 mW/°C
Thermal Time Constant	5 s

DIMENSIONS



	mm	inches
L	2.0±0.3	0.079±0.012
W	1.25±0.2	0.049±0.008
T	1.3 max	0.051 max
t	0.2 min	0.008 min

HOW TO ORDER

NC	12	K0	0103	J	BB
Type	Case Size	Material Code	Resistance	Tolerance	Packaging
NC = AgPdPt Term	12 = 0805	K0 = 3630 K	0103 = 10 kOhm	J = ±5%	BB = Cardboard tape (180mm reel, 4000 pcs/reel) BF = Cardboard tape (180mm reel, 2000 pcs/reel) BD = Cardboard tape (330mm reel, 10000 pcs/reel) -- = Bulk (5000 pcs/bag)

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MATERIAL TABLE

T (°C)	R(T) / R25	TF (%)	α (%/°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

RESISTANCE/TEMPERATURE

T (°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	414,385	562,688	710,991
-50	315,534	412,197	508,861
-45	241,188	304,777	368,366
-40	185,169	227,378	269,587
-35	142,839	171,105	199,371
-30	110,738	129,834	148,929
-25	86,296	99,310	112,325
-20	67,603	76,553	85,502
-15	53,242	59,453	65,663
-10	42,155	46,506	50,858
-5	33,553	36,633	39,713
0	26,847	29,050	31,254
5	21,593	23,187	24,782
10	17,456	18,624	19,793
15	14,182	15,050	15,918
20	11,580	12,233	12,887
25	9,500.0	10,000	10,500
30	7,781.2	8,219.4	8,657.5
35	6,404.0	6,791.7	7,179.3
40	5,295.3	5,640.8	5,986.2
45	4,398.4	4,708.1	5,017.8
50	3,669.5	3,948.5	4,227.5
55	3,074.6	3,326.8	3,579.0
60	2,586.9	2,815.6	3,044.3
65	2,185.4	2,393.3	2,601.1
70	1,853.5	2,042.8	2,232.2
75	1,578.0	1,750.8	1,923.6
80	1,348.4	1,506.4	1,664.4
85	1,156.4	1,301.0	1,445.7
90	995.1	1,127.8	1,260.4
95	859.3	981.1	1,102.9
100	744.5	856.4	968.4
105	647.0	750.1	853.2
110	564.1	659.1	754.1
115	493.2	580.9	668.6
120	432.6	513.6	594.6
125	380.4	455.4	530.4
130	335.5	404.9	474.4
135	296.7	361.1	425.5
140	263.0	322.8	382.6
145	233.7	289.3	344.9
150	208.2	260.0	311.7

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