NB21M00333JBB

(0603, 33 kOhm ±5%, 3950 K, Sn Term)

NTC Chip Thermistor Datasheet

BASIC SPECIFICATION

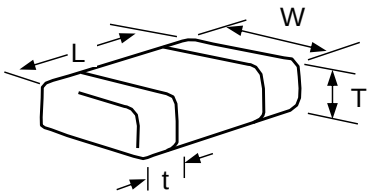
Case Size [EIA]	0603
Operating Temperature	-55 to +150°C
Grade	Automotive & General
Qualification	AEC-Q200 based
Termination	Sn
Assembly	Pb Free Reflow
RoHS	Yes
MSL Level	1
Packaging	T&R 7in (180mm)
Packaging Qty	4000

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

ELECTRICAL CHARACTERISTICS

Resistance [25°C]	33 kOhm
Resistance Tolerance [25°C]	±5%
B Value (25/85)	3950 K
B Value Tolerance	±3%
B Value (25/50)	3925 K
B Value (25/100)	3958 K
Maximum Dissipation [25°C]	0.07 W
Thermal Dissipation Factor	1 mW/°C
Thermal Time Constant	4 s

DIMENSIONS



	mm	inches
L	1.6±0.2	0.063±0.008
W	0.8±0.2	0.031±0.008
T	1.0 max	0.039 max
t	0.2 min	0.008 min

HOW TO ORDER

NB	21	M0	0333	J	BB
Type	Case Size	Material Code	Resistance	Tolerance	Packaging
NB = Sn Term	21 = 0603	M0 = 3950 K	0333 = 33 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	99.59	15.64	-7.42
-50	68.97	14.25	-7.16
-45	48.40	12.94	-6.91
-40	34.38	11.69	-6.67
-35	24.71	10.51	-6.45
-30	17.97	9.39	-6.23
-25	13.20	8.33	-6.02
-20	9.804	7.31	-5.82
-15	7.352	6.35	-5.63
-10	5.565	5.43	-5.45
-5	4.251	4.55	-5.28
0	3.275	3.70	-5.11
5	2.544	2.90	-4.95
10	1.992	2.13	-4.80
15	1.572	1.39	-4.65
20	1.249	0.68	-4.51
25	1.000	0.00	-4.38
30	0.8057	0.66	-4.25
35	0.6534	1.30	-4.12
40	0.5331	1.92	-4.00
45	0.4376	2.53	-3.89
50	0.3612	3.12	-3.77
55	0.2998	3.70	-3.67
60	0.2501	4.26	-3.57
65	0.2097	4.81	-3.47
70	0.1767	5.35	-3.37
75	0.1496	5.87	-3.28
80	0.1272	6.38	-3.19
85	0.1087	6.88	-3.11
90	0.0932	7.37	-3.03
95	0.0803	7.84	-2.95
100	0.0694	8.31	-2.87
105	0.0602	8.76	-2.80
110	0.0524	9.21	-2.73
115	0.0458	9.64	-2.66
120	0.0402	10.07	-2.60
125	0.0353	10.48	-2.53
130	0.0312	10.89	-2.47
135	0.0276	11.29	-2.41
140	0.0245	11.68	-2.36
145	0.0218	12.06	-2.30
150	0.0194	12.43	-2.25

RESISTANCE/TEMPERATURE

T (°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	2,608,220	3,286,477	3,964,733
-50	1,837,981	2,276,156	2,714,331
-45	1,310,559	1,597,038	1,883,518
-40	945,114	1,134,518	1,323,922
-35	689,009	815,540	942,071
-30	507,560	592,906	678,252
-25	377,647	435,725	493,804
-20	283,691	323,534	363,376
-15	215,079	242,611	270,142
-10	164,504	183,652	202,800
-5	126,891	140,282	153,673
0	98,676	108,084	117,491
5	77,335	83,967	90,599
10	61,064	65,751	70,437
15	48,564	51,879	55,193
20	38,890	41,232	43,574
25	31,350	33,000	34,650
30	25,084	26,589	28,093
35	20,203	21,561	22,919
40	16,375	17,592	18,810
45	13,352	14,439	15,526
50	10,951	11,919	12,887
55	9,031.7	9,892.3	10,753
60	7,489.0	8,253.5	9,018.0
65	6,241.9	6,921.0	7,600.1
70	5,228.5	5,832.0	6,435.4
75	4,400.5	4,937.2	5,474.0
80	3,720.8	4,198.6	4,676.5
85	3,160.0	3,586.0	4,012.0
90	2,695.2	3,075.5	3,455.9
95	2,308.2	2,648.4	2,988.5
100	1,984.7	2,289.4	2,594.0
105	1,713.1	1,986.4	2,259.8
110	1,484.0	1,729.8	1,975.5
115	1,290.2	1,511.5	1,732.8
120	1,125.6	1,325.2	1,524.9
125	985.2	1,165.7	1,346.1
130	865.1	1,028.5	1,191.9
135	762.0	910.3	1,058.5
140	673.2	807.9	942.7
145	596.5	719.1	841.8
150	530.0	641.8	753.7

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