

产品承认书

PRODUCT SPECIFICATION FOR APPROVAL

客户名称 CUSTOMER NAME	
客户料号 P/N OF CUSTOMER	
承认字号 APPROVAL NO.	
产品名称 PRODUCT NAME	贴片型负温度系数热敏电阻 CHIP TYPE NTC THERMISTOR
规格型号 TYPE SPECIFICATION	SNC204B14100G0603EG
承认书版本号 APPROVAL SHEET VERSION	1.0
承认日期 DATE OF APPROVAL	

供 应 商 SUPPLIER		
制 定 DESIGNED	审 核 CHECKED	批 准 APPROVED
供应商品管部印鉴 SUPPLIER QA SEAL		

客 户 CUSTOMER		
检 验 INSPECTED	审 核 CHECKED	批 准 APPROVED
客户承认印鉴 CUSTOMER APPROVAL SEAL		



修订履历

[illegible]

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1、规格型号 PART IDENTIFICATION

SN C 204 B₁ 4100 G 0603 E G
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

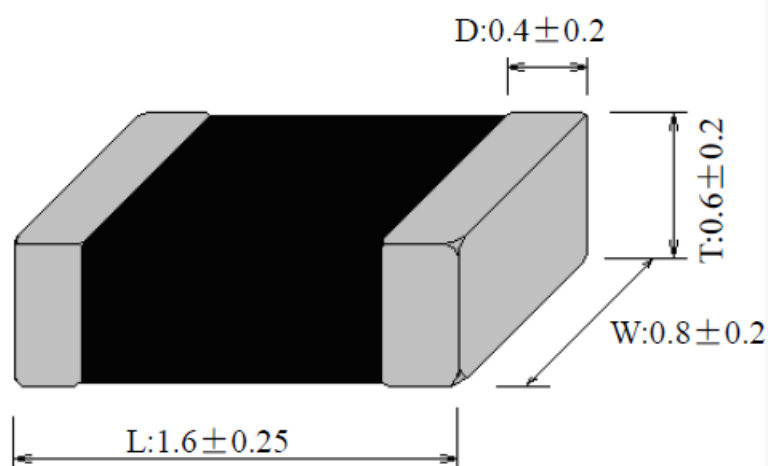
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CLASS	C指贴片;
	C REFERS TO THE PATCH;
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	204指200KΩ;
	204 MEANS 200 KΩ
④ B值代码 B-VALUE CODE	B1指25/50
	B1 MEANS 25/50
⑤ B值数值 B-VALUE	4100指B值为4100K;
	4100 MEANS THE B VALUE IS 4100K;
⑥ 阻值误差 RESISTANCE ERROR	G指±2%;
	G REFERS TO ±2%;
⑦ 本体尺寸 BODY SIZE	0603指2.2图所示尺寸;
	0603 REFERS TO THE SIZE SHOWN IN FIGURE 2.2
⑧ 环保产品 ENVIRONMENTAL PROTECTION PRODUCT	E表示环保产品;
	E STANDS FOR ENVIRONMENTALLY FRIENDLY PRODUCTS;
⑨ 特殊定义 SPECIAL DEFINITION	G表示产品B值误差±2%。
	G INDICATES THE PRODUCT B VALUE ERROR OF ± 2%。

2、产品特性PRODUCTION FEATURES

2.1 技术参数TECHNICAL PARAMETER

型号规格 SPECIFICATION AND MODEL	额定零功率电阻值 RATED ZERO POWER RESISTANCE VALUE	B (K)	耗散系数 DISSIPATION COEFFICIENT (S)	热时间常数 THERMAL TIME CONSTANT (S)	额定功率 RATED POWER (mw)	工作温度范围 (°C)
SNC204B ₁ 4100G0603EG	200K	4100	≥ 2	≤ 3	200	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



(单位UNIT: MM)

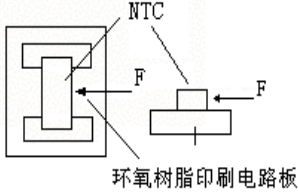
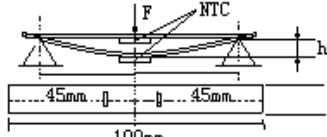
3、检验规则 INSPECTION REGULATIONS

3.1 出厂检验 DELIVERY INSPECTION

序号 SEQUENCE	检测项目 TEST ITEM	检验方法 INSPECTION METHOD	性能要求 PERFORMANCE REQUIREMENT
(1)	R ₂₅	将待测品置于 25℃高精度油槽内稳定后 测量 THE PRODUCT TO BE MEASURED IS PLACED IN A 25℃ HIGH PRECISION OIL TANK FOR STABILITY	200KΩ±2%
(2)	B _{25/50}	将待测品置于25℃、50℃精度油槽内稳 定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A 25℃, 50℃ PRECISION OIL TANK AND THEN MEASURED	4100K±2%
(3)	外观 APPEARANCE	在20X的显微镜下目测检查 VISUAL INSPECTION UNDER A 20X MICROSCOPE	产品符合2.2的外形要求，无腐蚀、 流挂、断片、崩边崩角等 THE PRODUCTS MEET THE REQUIREMENTS OF 2.2 SHAPE, NO CORROSION, FLOW HANGING, FRAGMENTATION, EDGE BREAKAGE, ETC
(4)	尺寸 DIMENSION	用精度0.01mm游标卡尺测量 MEASURE WITH A VERNIER CALIPER WITH ACCURACY OF 0.01MM	符合2.2的外形尺寸 CONFORM TO THE DIMENSIONS OF 2.2
(5)	可焊性 WELDABILITY	焊接温度 WELDING TEMPERATURE: 245± 5℃; 浸入时间 IMMERSION TIME: 3±1s	着锡面积 TIN AREA≥95%

(6)	耐焊性 WELDING RESISTANCE	焊接温度 WELDING TEMPERATURE: $260 \pm 10^{\circ}\text{C}$ 浸入时间 IMMERSION TIME: $10 \pm 1\text{s}$	无外观损伤 NO APPEARANCE DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$
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3.2 型式检验PATTERN INSPECTION

序号 SEQUENCE	检验项目 ITEMS	检验标准 STANDARD	检验标准 STANDARD	性能要求 PERFORMANCE REQUIREMENTS
(1)	端头强度 END STRENGTH	IEC68-2-21	 环氧树脂印刷电路板 F: 0603 ≥ 8N	无外观损伤 NO COSMETIC DAMAGE
(2)	抗弯强度 BENDING STRENGTH	IEC68-2-21	 h: 1±0.1mm	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 3%
(3)	跌落 FALL	IEC68-2-32	跌落高度 DROP HEIGHT: 1.0±0.1m 跌落次数 NUMBER OF DROPS: 1 跌落面 DROP SURFACE: 水泥 CEMENT	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 1% $\Delta B/B$ ≤ 2%
(4)	湿热负载 DAMP-HEAT LOAD	IEC68-2-2/IEC68-2-3/CNS5550	温度 TEMPERATURE: 40±2°C 湿度 HUMIDNESS: 90~95%RH 时间 TIME: 500±12h; 工作电流 WORKING CURRENT	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 5% $\Delta B/B$ ≤ 2%
(5)	高温存储 HIGH TEMPERATURE STORAGE	IEC68-2-2/CNS5550	温度 TEMPERATURE: 125±2°C 时间 TIME: 1000±24h	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 5% $\Delta B/B$ ≤ 2%
(6)	冷热冲击 THERMAL SHOCK	IEC68-2-14	温度 TEMPERATURE: -40°C, +125°C 周期 PERIOD: 100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 5% $\Delta B/B$ ≤ 2%
(7)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE: -40±2°C 时间 TIME: 1000±24h	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤ 2%

				$ \Delta B/B \leq 2\%$
(8)	耐久性 DURABILITY	UL1434	环境温度 ENVIRONMENT TEMPERATURE: $25 \pm 2^\circ\text{C}$ 工作电流 WORKING CURRENT 周期 PERIOD: 6000	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$

4、包装、贮存 PACKAGE & STORAGE

4.1 包装 PACKAGE

序号 SEQUENCE	包装方式 PACKAGING	包装材料、尺寸 PACKAGING MATERIAL & DIMENSION	产品数量 QUANTITY OF PRODUCT
(1)	编带 BRAID	0603纸带, 标准带轮 0603 PAPER TAPE, STANDARD PULLEY	4000PCS
(2)	内包装盒 INNER BOX	纸箱CARTON, L×W×H=185mm×70mm×190mm	
(3)	外包装箱 OUTER PACKING BOX	纸箱CARTON, L×W×H=370mm×205mm×215mm	

4.2 贮存 STORAGE

产品密封保存, 存放产品的产库环境温度-10℃~+40℃、相对湿度不大于70%, 仓库内不允许有各种有害气体、易爆的产品及腐蚀性的化学物品, 并且无强烈的机械振动、冲击和强辐射的作用, 包装箱应垫高地面至少20cm, 距离墙壁、热源、冷源、窗口或空气入口至少50cm。

- THIS PRODUCT MUST BE KEPT SEALED.
- STORE IN AN ORDINARY ENVIRONMENT (NORMAL ROOM TEMPERATURE, HUMIDITY AND ATMOSPHERIC PRESSURE).
- STORAGE TEMPERATURE: -10℃~+40℃
- RELATIVE HUMIDITY: ≤70%RH.
- KEEP AWAY FROM CORROSIVE GASES, DEOXIDIZING GAS, FLAMMABLE GAS OR DIRECT SUNLIGHT.
- AVOID STRONG MECHANICAL VIBRATION, SHOCK.
- THE PACKING BOX SHOULD BE RAISED AT LEAST 20CM ABOVE THE GROUND AND AT LEAST 50CM AWAY FROM THE WALL, HEAT SOURCE, COLD SOURCE, WINDOWS OR AIR INLET.
- ABNORMAL STORAGE AND OPERATING CONDITIONS MAY CAUSE MALFUNCTION FUNCTION OR FAILURE OF OUR PRODUCTS.

5、电阻－温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE

 $R_{25}=200K\Omega\pm 2\%$
 $B_{25/50}=4100K\pm 2\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	7729.0735	8501.0029	9346.2876	-1	698.9496	731.9627	766.2285
-39	7198.7155	7906.1980	8679.7379	0	662.8185	693.3736	725.0471
-38	6708.6173	7357.3388	8065.5640	1	628.7835	657.0624	686.3384
-37	6255.4459	6850.5608	7499.2912	2	596.7105	622.8811	649.9393
-36	5836.1663	6382.3497	6976.8564	3	566.4748	590.6921	615.6983
-35	5448.0125	5949.5079	6494.5675	4	537.9602	560.3675	583.4746
-34	5088.4623	5549.1233	6049.0675	5	511.0586	531.7884	553.1376
-33	4755.2141	5178.5426	5637.3017	6	485.6693	504.8440	524.5657
-32	4446.1665	4835.3465	5256.4886	7	461.6985	479.4312	497.6459
-31	4159.3994	4517.3275	4904.0940	8	439.0586	455.4542	472.2730
-30	3893.1573	4222.4703	4577.8073	9	417.6679	432.8233	448.3492
-29	3645.8342	3948.9336	4275.5206	10	397.4503	411.4553	425.7834
-28	3415.9601	3695.0344	3995.3095	11	378.3348	391.2724	404.4905
-27	3202.1884	3459.2328	3735.4159	12	360.2548	372.2020	384.3916
-26	3003.2849	3240.1198	3494.2330	13	343.1484	354.1765	365.4128
-25	2818.1178	3036.4047	3270.2911	14	326.9576	337.1326	347.4852
-24	2645.6485	2846.9047	3062.2451	15	311.6281	321.0113	330.5448
-23	2484.9235	2670.5352	2868.8632	16	297.1093	305.7574	314.5315
-22	2335.0666	2506.3012	2689.0167	17	283.3536	291.3194	299.3894
-21	2195.2728	2353.2893	2521.6708	18	270.3167	277.6490	285.0661
-20	2064.8012	2210.6602	2365.8762	19	257.9570	264.7011	271.5129
-19	1942.9703	2077.6429	2220.7613	20	246.2355	252.4335	258.6839
-18	1829.1525	1953.5280	2085.5260	21	235.1157	240.8066	246.5365
-17	1722.7697	1837.6630	1959.4345	22	224.5634	229.7834	235.0307
-16	1623.2889	1729.4472	1841.8108	23	214.5464	219.3293	224.1290
-15	1530.2187	1628.3271	1732.0326	24	205.0347	209.4116	213.7964
-14	1443.1054	1533.7928	1629.5272	25	196.0000	200.0000	204.0000
-13	1361.5303	1445.3740	1533.7671	26	187.0734	191.0658	195.0653
-12	1285.1067	1362.6368	1444.2664	27	178.6048	182.5823	186.5736
-11	1213.4771	1285.1807	1360.5768	28	170.5682	174.5241	178.5004
-10	1146.3109	1212.6357	1282.2849	29	162.9391	166.8678	170.8228
-9	1083.3024	1144.6601	1209.0093	30	155.6948	159.5910	163.5193
-8	1024.1684	1080.9379	1140.3977	31	148.8136	152.6729	156.5696
-7	968.6470	1021.1767	1076.1244	32	142.2756	146.0940	149.9548
-6	916.4953	965.1061	1015.8887	33	136.0617	139.8357	143.6569
-5	867.4882	912.4757	959.4124	34	130.1541	133.8807	137.6589
-4	821.4169	863.0535	906.4378	35	124.5361	128.2128	131.9451
-3	778.0877	816.6244	856.7268	36	119.1920	122.8165	126.5005
-2	737.3209	772.9891	810.0585	37	114.1070	117.6774	121.3109
T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	109.2672	112.7819	116.3631	82	20.2743	21.6292	23.0653
39	104.6594	108.1172	111.6446	83	19.5989	20.9226	22.3266

40	100.2713	103.6711	107.1434	84	18.9493	20.2425	21.6152
41	96.0912	99.4324	102.8485	85	18.3243	19.5877	20.9298
42	92.1084	95.3901	98.7493	86	17.7229	18.9572	20.2694
43	88.3123	91.5343	94.8360	87	17.1441	18.3500	19.6329
44	84.6934	87.8554	91.0991	88	16.5869	17.7652	19.0195
45	81.2423	84.3443	87.5297	89	16.0505	17.2017	18.4281
46	77.9506	80.9925	84.1195	90	15.5339	16.6588	17.8579
47	74.8099	77.7920	80.8606	91	15.0364	16.1355	17.3080
48	71.8126	74.7351	77.7455	92	14.5571	15.6311	16.7777
49	68.9515	71.8148	74.7671	93	14.0954	15.1449	16.2660
50	66.2196	69.0241	71.9187	94	13.6504	14.6760	15.7723
51	63.6105	66.3568	69.1940	95	13.2215	14.2238	15.2959
52	61.1180	63.8067	66.5870	96	12.8081	13.7876	14.8361
53	58.7363	61.3680	64.0920	97	12.4095	13.3668	14.3923
54	56.4600	59.0355	61.7037	98	12.0252	12.9608	13.9637
55	54.2838	56.8038	59.4170	99	11.6545	12.5690	13.5499
56	52.2029	54.6682	57.2269	100	11.2969	12.1908	13.1502
57	50.2126	52.6240	55.1291	101	10.9519	11.8257	12.7641
58	48.3086	50.6669	53.1191	102	10.6190	11.4732	12.3912
59	46.4866	48.7927	51.1928	103	10.2977	11.1328	12.0308
60	44.7427	46.9975	49.3463	104	9.9876	10.8040	11.6825
61	43.0732	45.2777	47.5759	105	9.6883	10.4864	11.3458
62	41.4746	43.6296	45.8782	106	9.3992	10.1796	11.0204
63	39.9435	42.0499	44.2497	107	9.1201	9.8831	10.7057
64	38.4767	40.5355	42.6874	108	8.8504	9.5966	10.4015
65	37.0712	39.0833	41.1881	109	8.5900	9.3196	10.1072
66	35.7242	37.6905	39.7492	110	8.3384	9.0519	9.8226
67	34.4329	36.3544	38.3678	111	8.0952	8.7930	9.5472
68	33.1948	35.0724	37.0414	112	7.8602	8.5427	9.2808
69	32.0074	33.8420	35.7674	113	7.6331	8.3006	9.0230
70	30.8685	32.6610	34.5437	114	7.4135	8.0665	8.7734
71	29.7757	31.5270	33.3680	115	7.2012	7.8399	8.5319
72	28.7271	30.4381	32.2381	116	6.9958	7.6207	8.2980
73	27.7206	29.3922	31.1521	117	6.7973	7.4086	8.0716
74	26.7543	28.3874	30.1081	118	6.6052	7.2033	7.8524
75	25.8264	27.4219	29.1042	119	6.4194	7.0045	7.6400
76	24.9353	26.4939	28.1387	120	6.2396	6.8121	7.4343
77	24.0793	25.6020	27.2100	121	6.0656	6.6259	7.2350
78	23.2569	24.7444	26.3165	122	5.8972	6.4455	7.0419
79	22.4665	23.9197	25.4566	123	5.7342	6.2707	6.8548
80	21.7068	23.1264	24.6290	124	5.5764	6.1015	6.6734
81	20.9765	22.3634	23.8324	125	5.4236	5.9375	6.4976