

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	SNC204B24060F0603E
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

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1、规格型号 PART IDENTIFICATION

SN C 204 B₂ 4060 F 0603 E
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

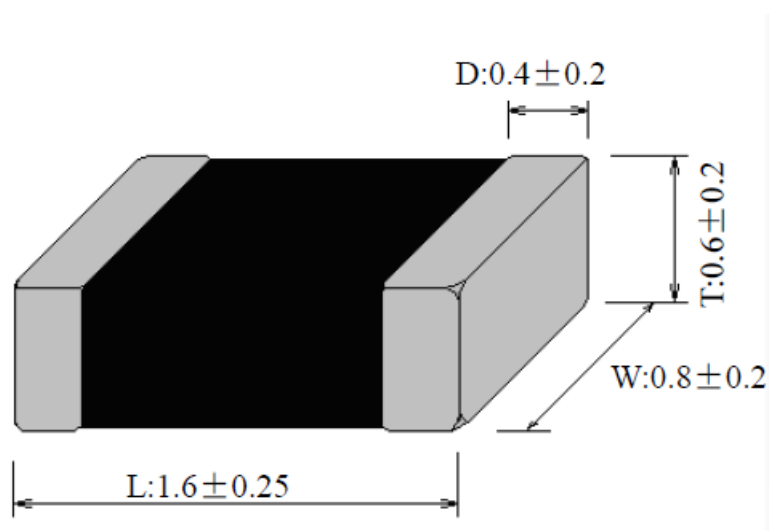
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	204指200KΩ
	204 MEANS 200KΩ;
④ B 值代码 B-VALUE CODE	B2指 25/80
	B2 MEANS 25/80
⑤ B 值数值 B-VALUE TOLERANCE	4060指B值为4060K
	4060 MEANS THAT B VALUE IS 4060K
⑥ 阻值误差 PACKAGING STYLE	F指±1%
	F INDICATES ±1%
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 PRODUCTS	E表示环保产品。
	E STANDS FOR ENVIRONMENTALLY FRIENDLY PRODUCTS.

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 ₂ 4060F0603E	200K	4060	≥2	≤3	200	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



(单位UNIT: MM)

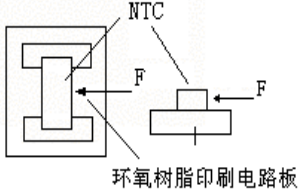
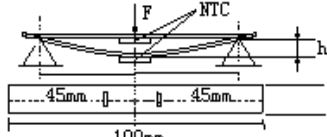
3、检验规则 INSPECTION REGULATIONS

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±1%
(2)	B _{25/85}	将待测品置于25℃、85℃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	4060K±1%
(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

 $R_{25}=200K\Omega\pm1\%$
 $B_{25/85}=4060K\pm3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	7026.0099	7925.2516	8938.6909	-1	680.9206	714.5818	749.8320
-39	6557.3762	7380.8643	8306.9369	0	646.7039	677.5923	709.8850
-38	6123.4249	6877.8367	7724.4202	1	614.4231	642.7509	672.3176
-37	5721.3507	6412.7423	7186.9657	2	583.9571	609.9203	636.9740
-36	5348.5933	5982.4610	6690.7799	3	555.1932	578.9722	603.7094
-35	5002.8149	5584.1497	6232.4132	4	528.0261	549.7878	572.3892
-34	4681.8793	5215.2158	5808.7265	5	502.3578	522.2561	542.8884
-33	4383.8333	4873.2940	5416.8619	6	478.0968	496.2738	515.0904
-32	4106.8897	4556.2243	5054.2151	7	455.1577	471.7447	488.8873
-31	3849.4126	4262.0336	4718.4119	8	433.4608	448.5790	464.1780
-30	3609.9031	3988.9179	4407.2859	9	412.9316	426.6930	440.8689
-29	3386.9875	3735.2271	4118.8596	10	393.5005	406.0086	418.8724
-28	3179.4057	3499.4505	3851.3263	11	375.1024	386.4529	398.1071
-27	2986.0014	3280.2046	3603.0347	12	357.6764	367.9579	378.4971
-26	2805.7127	3076.2217	3372.4741	13	341.1656	350.4599	359.9714
-25	2637.5638	2886.3387	3158.2623	14	325.5168	333.8995	342.4638
-24	2480.6579	2709.4890	2959.1331	15	310.6800	318.2211	325.9128
-23	2334.1697	2544.6930	2773.9264	16	296.6084	303.3728	310.2604
-22	2197.3399	2391.0509	2601.5786	17	283.2583	289.3059	295.4530
-21	2069.4691	2247.7355	2441.1139	18	270.5886	275.9749	281.4402
-20	1949.9129	2113.9863	2291.6364	19	258.5609	263.3371	268.1748
-19	1838.0770	1989.1033	2152.3234	20	247.1390	251.3527	255.6128
-18	1733.4137	1872.4420	2022.4188	21	236.2889	239.9843	243.7130
-17	1635.4169	1763.4087	1901.2273	22	225.9790	229.1966	232.4368
-16	1543.6198	1661.4562	1788.1093	23	216.1793	218.9570	221.7482
-15	1457.5908	1566.0800	1682.4758	24	206.8618	209.2344	211.6131
-14	1376.9310	1476.8142	1583.7846	25	198.0000	200.0000	202.0000
-13	1301.2716	1393.2291	1491.5358	26	189.0597	191.2266	193.3989
-12	1230.2713	1314.9276	1405.2687	27	180.5745	182.8885	185.2137
-11	1163.6140	1241.5428	1324.5581	28	172.5188	174.9620	177.4221
-10	1101.0071	1172.7354	1249.0117	29	164.8684	167.4244	170.0029
-9	1042.1793	1108.1915	1178.2670	30	157.6009	160.2545	162.9364
-8	986.8792	1047.6206	1111.9894	31	150.6950	153.4324	156.2039
-7	934.8736	990.7539	1049.8693	32	144.1308	146.9394	149.7878
-6	885.9459	937.3419	991.6204	33	137.8895	140.7579	143.6716
-5	839.8952	887.1539	936.9781	34	131.9535	134.8712	137.8396
-4	796.5348	839.9756	885.6969	35	126.3063	129.2637	132.2771
-3	755.6912	795.6082	837.5500	36	120.9323	123.9207	126.9702
-2	717.2032	753.8674	792.3267	37	115.8169	118.8283	121.9059

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	110.9461	113.9735	117.0717	82	20.8812	22.5203	24.2856
39	106.3072	109.3439	112.4561	83	20.1912	21.7975	23.5292
40	101.8877	104.9279	108.0479	84	19.5274	21.1014	22.7999
41	97.6762	100.7145	103.8368	85	18.8885	20.4308	22.0968

42	93.6619	96.6933	99.8130	86	18.2736	19.7847	21.4187
43	89.8344	92.8547	95.9671	87	17.6816	19.1621	20.7646
44	86.1841	89.1894	92.2903	88	17.1116	18.5621	20.1336
45	82.7019	85.6887	88.7744	89	16.5626	17.9837	19.5247
46	79.3792	82.3442	85.4115	90	16.0338	17.4260	18.9371
47	76.2078	79.1484	82.1942	91	15.5244	16.8882	18.3700
48	73.1802	76.0937	79.1153	92	15.0335	16.3695	17.8224
49	70.2890	73.1733	76.1683	93	14.5605	15.8692	17.2938
50	67.5275	70.3806	73.3469	94	14.1045	15.3865	16.7833
51	64.8891	67.7093	70.6449	95	13.6649	14.9207	16.2902
52	62.3678	65.1535	68.0569	96	13.2410	14.4711	15.8139
53	59.9577	62.7077	65.5773	97	12.8322	14.0372	15.3537
54	57.6534	60.3666	63.2012	98	12.4379	13.6182	14.9090
55	55.4498	58.1253	60.9237	99	12.0575	13.2137	14.4792
56	53.3419	55.9788	58.7402	100	11.6905	12.8230	14.0638
57	51.3251	53.9228	56.6463	101	11.3363	12.4457	13.6622
58	49.3951	51.9530	54.6380	102	10.9945	12.0811	13.2738
59	47.5476	50.0654	52.7113	103	10.6645	11.7289	12.8983
60	45.7787	48.2561	50.8625	104	10.3459	11.3886	12.5351
61	44.0847	46.5215	49.0881	105	10.0382	11.0596	12.1837
62	42.4621	44.8582	47.3848	106	9.7411	10.7416	11.8438
63	40.9075	43.2628	45.7492	107	9.4540	10.4342	11.5148
64	39.4177	41.7323	44.1785	108	9.1767	10.1369	11.1965
65	37.9897	40.2638	42.6697	109	8.9088	9.8495	10.8884
66	36.6207	38.8543	41.2200	110	8.6499	9.5714	10.5901
67	35.3079	37.5013	39.8270	111	8.3996	9.3024	10.3013
68	34.0488	36.2022	38.4880	112	8.1577	9.0422	10.0216
69	32.8409	34.9547	37.2008	113	7.9238	8.7904	9.7508
70	31.6819	33.7564	35.9631	114	7.6976	8.5467	9.4885
71	30.5695	32.6051	34.7728	115	7.4789	8.3108	9.2343
72	29.5017	31.4988	33.6277	116	7.2673	8.0824	8.9881
73	28.4765	30.4355	32.5261	117	7.0626	7.8613	8.7495
74	27.4920	29.4134	31.4660	118	6.8646	7.6472	8.5183
75	26.5463	28.4306	30.4457	119	6.6730	7.4399	8.2942
76	25.6379	27.4855	29.4634	120	6.4875	7.2391	8.0769
77	24.7649	26.5765	28.5177	121	6.3080	7.0445	7.8662
78	23.9259	25.7019	27.6070	122	6.1342	6.8560	7.6620
79	23.1194	24.8604	26.7297	123	5.9660	6.6734	7.4639
80	22.3440	24.0504	25.8846	124	5.8030	6.4964	7.2718
81	21.5984	23.2708	25.0703	125	5.6452	6.3248	7.0854