

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	SNC104B14100J0402E
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 104 B₁ 4100 J 0402 E
 ① ② ③ ④ ④ ⑥ ⑦ ⑧

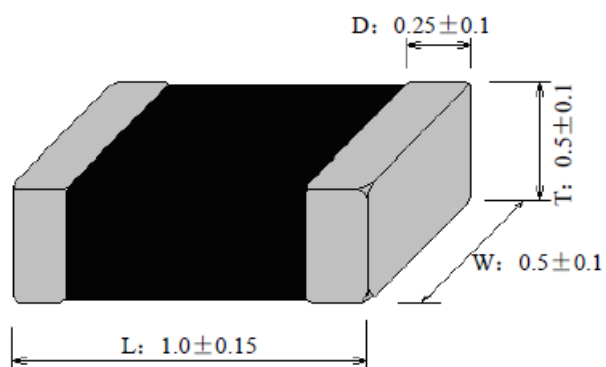
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	104指100KΩ
	104 MEANS 100KΩ;
④ B 值代码 B-VALUE CODE	B ₁ 指 25/50
	B ₁ MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	3950指B值为3950K
	3950 MEANS THAT B VALUE IS 3950K
⑥ 阻值误差 PACKAGING STYLE	F指±1%;
	F INDICATES ±1%
⑦ 本体尺寸 BODY SIZE	0402指2.2图所示尺寸
	0402 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)
SNC104B ₁ 4100J0402E	100K	4100	≥ 1	≤ 3	100	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

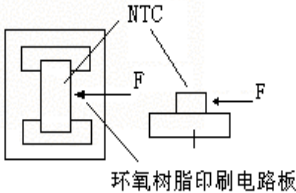
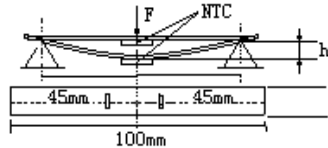
3、检验规则 INSPECTION REGULATIONS

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	100KΩ±5%
(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	3950K±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, 着锡面积 $\geq 75\%$ NO APPEARANCE DAMAGE, TIN AREA $\geq 75\%$ $ \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: 0402$\geq$3N	无外观损伤 NO COSMETIC DAMAGE
(2)	抗弯强度 BENDING STRENGTH	IEC68-2-21	 h: 1$\pm$0.1mm	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ $\leq$ 3%
(3)	跌落 FALL	IEC68-2-32	跌落高度 DROP HEIGHT: 1.0 $\pm$ 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 $\Delta R_{25}/R_{25}$ $\leq$ 1% $\Delta B/B$ $\leq$ 2%
(4)	湿热负载 DAMP-HEAT LOAD	IEC68-2-2/IEC68-2-3/CNS5550	温度 TEMPERATURE: 40 $\pm$ 2 $^{\circ}$ C 湿度 HUMIDNESS: 90~95%RH 时间 TIME: 500 $\pm$ 12h; 工作电流 WORKING CURRENT	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ $\leq$ 5% $\Delta B/B$ $\leq$ 2%
(5)	高温存储 HIGH TEMPERATURE STORAGE	IEC68-2-2/CNS5550	温度 TEMPERATURE: 125 $\pm$ 2 $^{\circ}$ C 时间 TIME: 1000 $\pm$ 24h	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ $\leq$ 5% $\Delta B/B$ $\leq$ 2%
(6)	冷热冲击 THERMAL SHOCK	IEC68-2-14	温度 TEMPERATURE: -40 $^{\circ}$ C, +125 $^{\circ}$ C 周期 PERIOD: 100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ $\leq$ 5% $\Delta B/B$ $\leq$ 2%
(7)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE: -40 $\pm$ 2 $^{\circ}$ C 时间 TIME: 1000 $\pm$ 24h	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ $\leq$ 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	0402纸带, 标准带轮 0402 PAPER TAPE, STANDARD PULLEY	10000PCS
(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

 $R_{25}=100\Omega\pm5\%$
 $B_{25/50}=4100K\pm5\%$

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	3347.6633	4250.5015	5383.3359	-1	325.8439	365.9813	410.0352
-39	3124.7438	3953.0990	4988.5448	0	309.5024	346.6868	387.3678
-38	2918.2993	3678.6694	4625.5630	1	294.0840	328.5312	366.0958
-37	2726.9987	3425.2804	4291.6099	2	279.5310	311.4405	346.1251
-36	2549.6272	3191.1749	3984.1661	3	265.7897	295.3460	327.3685
-35	2385.0753	2974.7539	3700.9472	4	252.8100	280.1837	309.7450
-34	2232.3293	2774.5616	3439.8808	5	240.5454	265.8942	293.1795
-33	2090.4620	2589.2713	3199.0847	6	228.9520	252.4220	277.6022
-32	1958.6251	2417.6732	2976.8488	7	217.9893	239.7156	262.9483
-31	1836.0420	2258.6638	2771.6186	8	207.6192	227.7271	249.1580
-30	1722.0010	2111.2352	2581.9793	9	197.8064	216.4117	236.1751
-29	1615.8497	1974.4668	2406.6427	10	188.5174	205.7276	223.9476
-28	1516.9898	1847.5172	2244.4359	11	179.7216	195.6362	212.4276
-27	1424.8722	1729.6164	2094.2889	12	171.3898	186.1010	201.5698
-26	1338.9924	1620.0599	1955.2258	13	163.4947	177.0882	191.3323
-25	1258.8871	1518.2023	1826.3560	14	156.0112	168.5663	181.6764
-24	1184.1300	1423.4523	1706.8657	15	148.9154	160.5057	172.5656
-23	1114.3292	1335.2676	1596.0115	16	142.1848	152.8787	163.9659
-22	1049.1237	1253.1506	1493.1132	17	135.7988	145.6597	155.8460
-21	988.1813	1176.6446	1397.5484	18	129.7378	138.8245	148.1763
-20	931.1958	1105.3301	1308.7476	19	123.9833	132.3506	140.9294
-19	877.8846	1038.8214	1226.1885	20	118.5181	126.2167	134.0794
-18	827.9875	976.7640	1149.3927	21	113.3261	120.4033	127.6026
-17	781.2638	918.8315	1077.9211	22	108.3921	114.8917	121.4765
-16	737.4916	864.7236	1011.3710	23	103.7019	109.6646	115.6802
-15	696.4657	814.1636	949.3723	24	99.2421	104.7058	110.1942
-14	657.9963	766.8964	891.5852	25	95.0000	100.0000	105.0000
-13	621.9083	722.6870	837.6972	26	90.5491	95.5329	100.5390
-12	588.0391	681.3184	787.4209	27	86.3323	91.2911	96.2934
-11	556.2385	642.5903	740.4917	28	82.3361	87.2621	92.2516
-10	526.3674	606.3179	696.6661	29	78.5477	83.4339	88.4025
-9	498.2965	572.3301	655.7197	30	74.9551	79.7955	84.7362
-8	471.9063	540.4689	617.4454	31	71.5472	76.3365	81.2428
-7	447.0858	510.5883	581.6526	32	68.3134	73.0470	77.9133
-6	423.7322	482.5531	548.1655	33	65.2440	69.9178	74.7391
-5	401.7495	456.2379	516.8211	34	62.3299	66.9404	71.7122
-4	381.0491	431.5267	487.4694	35	59.5621	64.1064	68.8249
-3	361.5483	408.3122	459.9719	36	56.9326	61.4082	66.0700
-2	343.1703	386.4945	434.2000	37	54.4339	58.8387	63.4409

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
38	52.0588	56.3910	60.9310	82	9.1925	10.8146	12.6911
39	49.8003	54.0586	58.5344	83	8.8775	10.4613	12.2969
40	47.6522	51.8356	56.2453	84	8.5747	10.1212	11.9168
41	45.6086	49.7162	54.0583	85	8.2837	9.7938	11.5503

42	43.6638	47.6951	51.9684	86	8.0040	9.4786	11.1969
43	41.8125	45.7672	49.9708	87	7.7350	9.1750	10.8559
44	40.0497	43.9277	48.0608	88	7.4764	8.8826	10.5269
45	38.3707	42.1721	46.2342	89	7.2276	8.6009	10.2095
46	36.7714	40.4963	44.4871	90	6.9882	8.3294	9.9031
47	35.2471	38.8960	42.8153	91	6.7580	8.0678	9.6074
48	33.7943	37.3676	41.2154	92	6.5363	7.8156	9.3219
49	32.4091	35.9074	39.6839	93	6.3229	7.5724	9.0461
50	31.0881	34.5121	38.2175	94	6.1176	7.3380	8.7799
51	29.8278	33.1784	36.8131	95	5.9198	7.1119	8.5227
52	28.6254	31.9033	35.4677	96	5.7293	6.8938	8.2742
53	27.4778	30.6840	34.1787	97	5.5459	6.6834	8.0341
54	26.3822	29.5177	32.9433	98	5.3691	6.4804	7.8021
55	25.3360	28.4019	31.7592	99	5.1989	6.2845	7.5779
56	24.3368	27.3341	30.6238	100	5.0347	6.0954	7.3611
57	23.3822	26.3120	29.5349	101	4.8766	5.9129	7.1515
58	22.4699	25.3334	28.4904	102	4.7240	5.7366	6.9488
59	21.5980	24.3963	27.4882	103	4.5770	5.5664	6.7528
60	20.7645	23.4988	26.5267	104	4.4351	5.4020	6.5632
61	19.9673	22.6388	25.6035	105	4.2983	5.2432	6.3798
62	19.2049	21.8148	24.7174	106	4.1664	5.0898	6.2023
63	18.4754	21.0249	23.8664	107	4.0391	4.9416	6.0306
64	17.7774	20.2677	23.0491	108	3.9162	4.7983	5.8644
65	17.1094	19.5417	22.2640	109	3.7976	4.6598	5.7035
66	16.4697	18.8453	21.5096	110	3.6832	4.5260	5.5478
67	15.8572	18.1772	20.7845	111	3.5726	4.3965	5.3969
68	15.2706	17.5362	20.0876	112	3.4660	4.2714	5.2509
69	14.7086	16.9210	19.4175	113	3.3628	4.1503	5.1093
70	14.1701	16.3305	18.7732	114	3.2633	4.0332	4.9723
71	13.6540	15.7635	18.1535	115	3.1672	3.9200	4.8396
72	13.1593	15.2191	17.5573	116	3.0743	3.8104	4.7110
73	12.6849	14.6961	16.9837	117	2.9845	3.7043	4.5863
74	12.2299	14.1937	16.4316	118	2.8976	3.6016	4.4654
75	11.7935	13.7109	15.9002	119	2.8138	3.5023	4.3484
76	11.3749	13.2470	15.3887	120	2.7327	3.4061	4.2348
77	10.9731	12.8010	14.8960	121	2.6543	3.3129	4.1247
78	10.5875	12.3722	14.4216	122	2.5784	3.2227	4.0179
79	10.2172	11.9598	13.9646	123	2.5051	3.1354	3.9144
80	9.8618	11.5632	13.5243	124	2.4342	3.0508	3.8140
81	9.5204	11.1817	13.1000	125	2.3656	2.9688	3.7166