

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	SNC104B13950F0402E
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 103 B₁ 3950 J 0603 E
① ② ③ ④ ④ ⑥ ⑦ ⑧

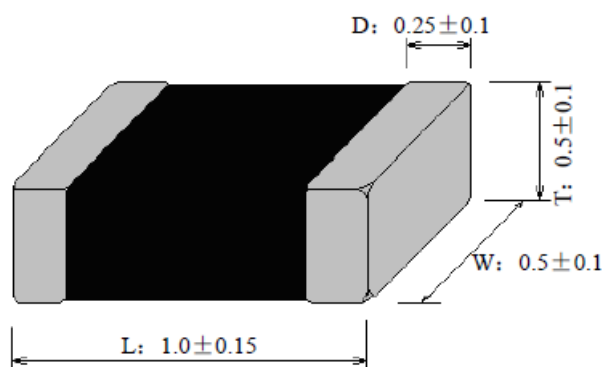
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	104指100KΩ
	104 MEANS 100KΩ;
④ B 值代码 B-VALUE CODE	B1指 25/50
	B1 MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	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 3950F0402E	100K	3950	≥ 1	≤ 3	100	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

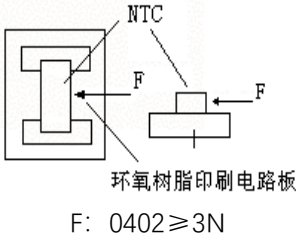
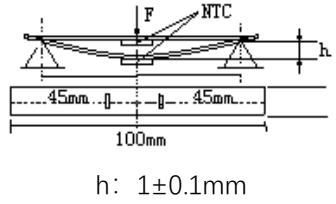
3、检验规则 INSPECTION REGULATIONS

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 ≥ 3N	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	0402纸带, 标准带轮 0603 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

 $R_{25}=100K\Omega\pm1\%$
 $B_{25/50}=3950K\pm1\%$

T(°C)	R _{min} (KΩ)	R _{nor} (KΩ)	R _{max} (KΩ)	T(°C)	R _{min} (KΩ)	R _{nor} (KΩ)	R _{max} (KΩ)
-40	3527.6532	3694.2472	3868.3217	-1	341.0313	348.8068	356.7239
-39	3292.1513	3445.2184	3605.0418	0	323.8735	331.0851	338.4234
-38	3074.0904	3214.7927	3361.5987	1	307.6873	314.3756	321.1772
-37	2872.0589	3001.4524	3136.3617	2	292.4119	298.6146	304.9183
-36	2684.7686	2803.8137	2927.8446	3	277.9907	283.7425	289.5843
-35	2511.0434	2620.6140	2734.6923	4	264.3709	269.7040	275.1171
-34	2349.8086	2450.7003	2555.6683	5	251.5032	256.4474	261.4626
-33	2200.0816	2293.0191	2389.6435	6	239.3416	243.9246	248.5705
-32	2060.9633	2146.6073	2235.5866	7	227.8434	232.0907	236.3936
-31	1931.6309	2010.5837	2092.5544	8	216.9683	220.9038	224.8882
-30	1811.3303	1884.1419	1959.6843	9	206.6791	210.3247	214.0132
-29	1699.3707	1766.5429	1836.1865	10	196.9409	200.3170	203.7306
-28	1595.1183	1657.1096	1721.3378	11	187.7208	190.8464	194.0047
-27	1497.9915	1555.2209	1614.4752	12	178.9884	181.8811	184.8021
-26	1407.4563	1460.3071	1514.9908	13	170.7151	173.3912	176.0916
-25	1323.0221	1371.8447	1422.3267	14	162.8741	165.3487	167.8441
-24	1244.2377	1289.3531	1335.9708	15	155.4404	157.7276	160.0325
-23	1170.6883	1212.3904	1255.4525	16	148.3905	150.5034	152.6311
-22	1101.9920	1140.5501	1180.3394	17	141.7024	143.6531	145.6162
-21	1037.7971	1073.4581	1110.2335	18	135.3555	137.1554	138.9653
-20	977.7797	1010.7700	1044.7689	19	129.3306	130.9901	132.6576
-19	921.6411	952.1684	983.6085	20	123.6094	125.1383	126.6734
-18	869.1058	897.3608	926.4418	21	118.1750	119.5824	120.9944
-17	819.9194	846.0774	872.9826	22	113.0114	114.3057	115.6032
-16	773.8474	798.0691	822.9668	23	108.1036	109.2927	110.4837
-15	730.6726	753.1062	776.1509	24	103.4376	104.5287	105.6207
-14	690.1948	710.9761	732.3100	25	99.0000	100.0000	101.0000
-13	652.2284	671.4827	691.2363	26	94.6951	95.6937	96.6932
-12	616.6019	634.4444	652.7380	27	90.6021	91.5977	92.5949
-11	583.1565	599.6933	616.6374	28	86.7096	87.7005	88.6938
-10	551.7451	567.0740	582.7704	29	83.0066	83.9914	84.9795
-9	522.2315	536.4424	550.9849	30	79.4828	80.4604	81.4418
-8	494.4892	507.6652	521.1401	31	76.1286	77.0978	78.0716
-7	468.4010	480.6187	493.1057	32	72.9350	73.8949	74.8600
-6	443.8583	455.1882	466.7607	33	69.8933	70.8431	71.7986
-5	420.7599	431.2674	441.9931	34	66.9956	67.9345	68.8796
-4	399.0122	408.7574	418.6988	35	64.2343	65.1616	66.0957
-3	378.5279	387.5665	396.7812	36	61.6022	62.5174	63.4399
-2	359.2261	367.6094	376.1506	37	59.0926	59.9952	60.9056

T(°C)	R _{min} (KΩ)	R _{nor} (KΩ)	R _{max} (KΩ)	T(°C)	R _{min} (KΩ)	R _{nor} (KΩ)	R _{max} (KΩ)
38	56.6992	57.5888	58.4866	82	11.3606	11.7240	12.0978
39	54.4159	55.2922	56.1771	83	10.9990	11.3545	11.7203
40	52.2372	53.0999	53.9715	84	10.6507	10.9984	11.3563
41	50.1577	51.0065	51.8646	85	10.3150	10.6551	11.0053
42	48.1723	49.0072	49.8515	86	9.9915	10.3242	10.6669

43	46.2764	47.0971	47.9276	87	9.6796	10.0051	10.3405
44	44.4653	45.2718	46.0884	88	9.3790	9.6974	10.0256
45	42.7350	43.5272	44.3297	89	9.0891	9.4006	9.7218
46	41.0814	41.8593	42.6477	90	8.8095	9.1143	9.4286
47	39.5006	40.2642	41.0385	91	8.5399	8.8380	9.1456
48	37.9891	38.7385	39.4987	92	8.2797	8.5714	8.8724
49	36.5436	37.2788	38.0249	93	8.0287	8.3141	8.6087
50	35.1608	35.8818	36.6140	94	7.7865	8.0657	8.3540
51	33.8376	34.5447	35.2629	95	7.5527	7.8258	8.1080
52	32.5713	33.2644	33.9689	96	7.3270	7.5942	7.8705
53	31.3590	32.0383	32.7291	97	7.1090	7.3705	7.6409
54	30.1982	30.8639	31.5412	98	6.8986	7.1545	7.4191
55	29.0865	29.7387	30.4026	99	6.6953	6.9457	7.2048
56	28.0215	28.6604	29.3110	100	6.4989	6.7440	6.9976
57	27.0010	27.6269	28.2644	101	6.3092	6.5491	6.7973
58	26.0230	26.6359	27.2605	102	6.1259	6.3606	6.6037
59	25.0855	25.6857	26.2975	103	5.9488	6.1785	6.4164
60	24.1866	24.7742	25.3735	104	5.7775	6.0024	6.2353
61	23.3245	23.8998	24.4868	105	5.6120	5.8321	6.0602
62	22.4976	23.0607	23.6355	106	5.4519	5.6673	5.8907
63	21.7042	22.2554	22.8182	107	5.2971	5.5080	5.7267
64	20.9428	21.4823	22.0333	108	5.1474	5.3539	5.5680
65	20.2121	20.7399	21.2795	109	5.0026	5.2047	5.4144
66	19.5105	20.0270	20.5552	110	4.8625	5.0604	5.2658
67	18.8367	19.3422	19.8592	111	4.7269	4.9207	5.1218
68	18.1897	18.6842	19.1903	112	4.5957	4.7854	4.9825
69	17.5681	18.0520	18.5473	113	4.4688	4.6545	4.8475
70	16.9709	17.4442	17.9290	114	4.3459	4.5277	4.7168
71	16.3969	16.8600	17.3345	115	4.2269	4.4050	4.5901
72	15.8452	16.2982	16.7626	116	4.1116	4.2861	4.4674
73	15.3148	15.7580	16.2124	117	4.0000	4.1709	4.3486
74	14.8047	15.2383	15.6829	118	3.8920	4.0593	4.2334
75	14.3142	14.7383	15.1734	119	3.7873	3.9512	4.1217
76	13.8423	14.2571	14.6829	120	3.6858	3.8464	4.0135
77	13.3882	13.7940	14.2107	121	3.5876	3.7448	3.9086
78	12.9513	13.3482	13.7560	122	3.4923	3.6464	3.8068
79	12.5308	12.9190	13.3180	123	3.4000	3.5509	3.7082
80	12.1259	12.5057	12.8961	124	3.3105	3.4584	3.6125
81	11.7361	12.1076	12.4896	125	3.2238	3.3686	3.5197