

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	SNC223B13950J0603E
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 223 B₁ 3950 J 0603 E
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

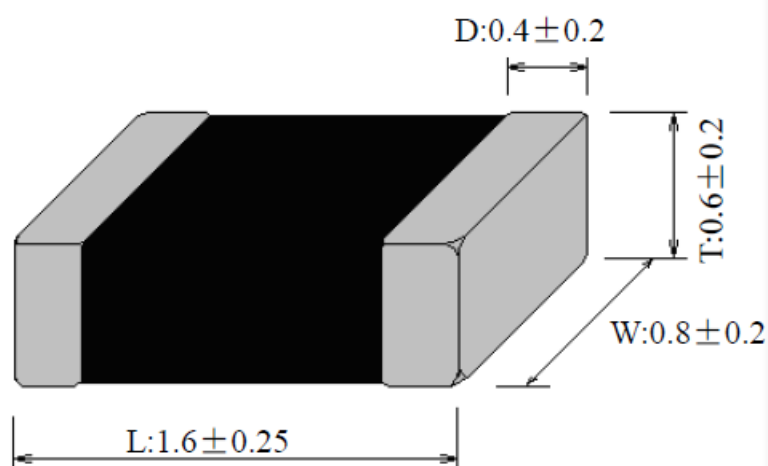
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CLASS	C指贴片;
	C REFERS TO THE PATCH;
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	223指22KΩ;
	223 MEANS 22 KΩ
④ B值代码 B-VALUE CODE	B1指25/50
	B1 MEANS 25/50
⑤ B值数值 B-VALUE	3950指B值为3950K;
	3950 MEANS THE B VALUE IS 3950K;
⑥ 阻值误差 RESISTANCE ERROR	J指±5%;
	J REFERS TO ±5%;
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;

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)
SNC223B ₁ 3950J0603E	22K	3950	≥ 2	≤ 3	210	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



(单位UNIT: MM)

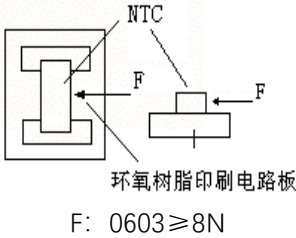
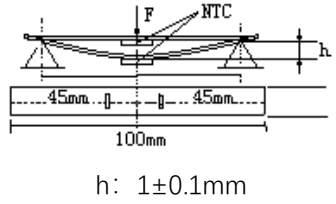
3、检验规则 INSPECTION REGULATIONS

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	150KΩ±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±3%
(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

 $R_{25}=22K\Omega\pm 5\%$
 $B_{25/50}=3950K\pm 3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	692.8615	812.7344	950.9632	-1	70.2188	76.7375	83.6516
-39	647.5101	757.9481	885.0040	0	66.7556	72.8387	79.2775
-38	605.4589	707.2544	824.0993	1	63.4851	69.1626	75.1596
-37	566.4451	660.3195	767.8270	2	60.3954	65.6952	71.2814
-36	530.2284	616.8390	715.8032	3	57.4755	62.4233	67.6276
-35	496.5892	576.5351	667.6781	4	54.7151	59.3349	64.1839
-34	465.3265	539.1541	623.1332	5	52.1044	56.4184	60.9369
-33	436.2563	504.4642	581.8779	6	49.6346	53.6634	57.8742
-32	409.2101	472.2536	543.6472	7	47.2971	51.0600	54.9844
-31	384.0332	442.3284	508.1990	8	45.0841	48.5988	52.2566
-30	360.5840	414.5112	475.3122	9	42.9883	46.2714	49.6809
-29	338.7324	388.6394	444.7847	10	41.0027	44.0697	47.2478
-28	318.3589	364.5641	416.4317	11	39.1210	41.9862	44.9486
-27	299.3537	342.1486	390.0837	12	37.3371	40.0138	42.7753
-26	281.6159	321.2676	365.5859	13	35.6453	38.1461	40.7202
-25	265.0526	301.8058	342.7963	14	34.0404	36.3767	38.7762
-24	249.5784	283.6577	321.5844	15	32.5175	34.7001	36.9366
-23	235.1146	266.7259	301.8309	16	31.0718	33.1107	35.1953
-22	221.5885	250.9210	283.4261	17	29.6990	31.6037	33.5464
-21	208.9334	236.1608	266.2690	18	28.3951	30.1742	31.9846
-20	197.0875	222.3694	250.2672	19	27.1561	28.8178	30.5048
-19	185.9939	209.4771	235.3354	20	25.9785	27.5304	29.1021
-18	175.5999	197.4194	221.3951	21	24.8590	26.3081	27.7721
-17	165.8571	186.1370	208.3744	22	23.7943	25.1473	26.5107
-16	156.7204	175.5752	196.2066	23	22.7814	24.0444	25.3140
-15	148.1483	165.6834	184.8306	24	21.8175	22.9963	24.1782
-14	140.1024	156.4147	174.1898	25	20.9000	22.0000	23.1000
-13	132.5471	147.7262	164.2320	26	19.9736	21.0526	22.1345
-12	125.4492	139.5778	154.9093	27	19.0936	20.1515	21.2148
-11	118.7784	131.9325	146.1770	28	18.2574	19.2941	20.3387
-10	112.5063	124.7563	137.9942	29	17.4626	18.4781	19.5038
-9	106.6065	118.0173	130.3229	30	16.7069	17.7013	18.7080
-8	101.0547	111.6863	123.1280	31	15.9882	16.9615	17.9491
-7	95.8281	105.7361	116.3769	32	15.3045	16.2569	17.2253
-6	90.9058	100.1414	110.0395	33	14.6539	15.5855	16.5349
-5	86.2682	94.8788	104.0881	34	14.0346	14.9456	15.8759
-4	81.8970	89.9266	98.4967	35	13.4449	14.3356	15.2470
-3	77.7754	85.2646	93.2414	36	12.8833	13.7538	14.6465
-2	73.8875	80.8741	88.2999	37	12.3483	13.1990	14.0730
T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	11.8384	12.6695	13.5251	82	2.2977	2.5793	2.8881
39	11.3525	12.1643	13.0016	83	2.2231	2.4980	2.7998

40	10.8891	11.6820	12.5012	84	2.1514	2.4196	2.7146
41	10.4472	11.2214	12.0229	85	2.0822	2.3441	2.6323
42	10.0257	10.7816	11.5655	86	2.0157	2.2713	2.5530
43	9.6234	10.3614	11.1280	87	1.9515	2.2011	2.4764
44	9.2395	9.9598	10.7094	88	1.8897	2.1334	2.4025
45	8.8730	9.5760	10.3088	89	1.8302	2.0681	2.3312
46	8.5230	9.2090	9.9254	90	1.7728	2.0051	2.2623
47	8.1887	8.8581	9.5584	91	1.7175	1.9444	2.1957
48	7.8693	8.5225	9.2068	92	1.6641	1.8857	2.1314
49	7.5640	8.2013	8.8701	93	1.6127	1.8291	2.0693
50	7.2722	7.8940	8.5475	94	1.5631	1.7744	2.0093
51	6.9932	7.5998	8.2384	95	1.5152	1.7217	1.9514
52	6.7264	7.3182	7.9420	96	1.4691	1.6707	1.8953
53	6.4712	7.0484	7.6579	97	1.4245	1.6215	1.8411
54	6.2270	6.7901	7.3855	98	1.3815	1.5740	1.7888
55	5.9933	6.5425	7.1242	99	1.3400	1.5281	1.7381
56	5.7696	6.3053	6.8735	100	1.3000	1.4837	1.6891
57	5.5554	6.0779	6.6329	101	1.2613	1.4408	1.6417
58	5.3503	5.8599	6.4020	102	1.2239	1.3993	1.5959
59	5.1538	5.6508	6.1803	103	1.1878	1.3593	1.5516
60	4.9655	5.4503	5.9675	104	1.1530	1.3205	1.5086
61	4.7851	5.2579	5.7631	105	1.1193	1.2831	1.4671
62	4.6122	5.0734	5.5667	106	1.0867	1.2468	1.4269
63	4.4464	4.8962	5.3780	107	1.0553	1.2118	1.3880
64	4.2873	4.7261	5.1967	108	1.0249	1.1778	1.3503
65	4.1348	4.5628	5.0224	109	0.9955	1.1450	1.3138
66	3.9885	4.4059	4.8549	110	0.9671	1.1133	1.2784
67	3.8481	4.2553	4.6938	111	0.9396	1.0825	1.2442
68	3.7134	4.1105	4.5388	112	0.9130	1.0528	1.2110
69	3.5840	3.9714	4.3898	113	0.8873	1.0240	1.1788
70	3.4598	3.8377	4.2463	114	0.8624	0.9961	1.1477
71	3.3405	3.7092	4.1083	115	0.8383	0.9691	1.1175
72	3.2259	3.5856	3.9755	116	0.8150	0.9429	1.0882
73	3.1158	3.4668	3.8476	117	0.7925	0.9176	1.0598
74	3.0100	3.3524	3.7244	118	0.7706	0.8930	1.0323
75	2.9083	3.2424	3.6058	119	0.7495	0.8693	1.0056
76	2.8106	3.1366	3.4916	120	0.7290	0.8462	0.9797
77	2.7166	3.0347	3.3815	121	0.7092	0.8239	0.9546
78	2.6262	2.9366	3.2755	122	0.6900	0.8022	0.9303
79	2.5393	2.8422	3.1733	123	0.6714	0.7812	0.9067
80	2.4557	2.7513	3.0747	124	0.6534	0.7608	0.8837
81	2.3752	2.6637	2.9797	125	0.6360	0.7411	0.8615