

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	SNC683B;3950F0603E
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]

目 录

CONTENTS

1、规格型号 PART IDENTIFICATION	1
2、产品特性 PRODUCTION FEATURES	2
2.1 技术参数 TECHNICAL PARAMETER	2
2.2 外形尺寸、材质 PRODUCTION DIMENSION、MATERIAL	2
3、检验规则 INSPECTION REGULATIONS	3
3.1 出厂检验 DELIVERY INSPECTION	3
3.2 型式检验 PATTERN INSPECTION	5
4、包装、贮存 PACKAGE & STORAGE	7
4.1 包装 PACKAGE	7
4.2 贮存 STORAGE	7
5、电阻-温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE	8

1、规格型号 PART IDENTIFICATION

SN C 683 B₁ 3950 F 0603 E
 ① ② ③ ④ ④ ⑥ ⑦ ⑧

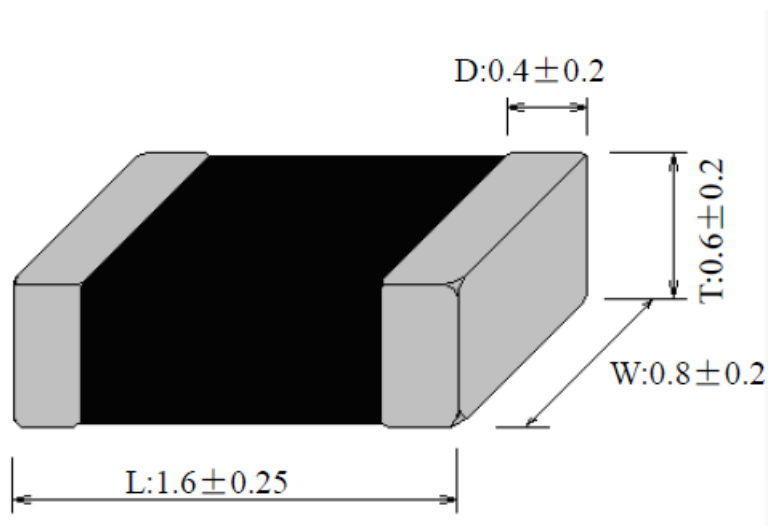
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值（25°C零功率电阻值） PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	683指68KΩ
	683 MEANS 68 KΩ
④ B 值代码 B-VALUE CODE	B1指 25/50
	B1 MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	3950指B值为3950K
	3950 MEANS THAT B VALUE IS 3950K
⑥ 阻值误差 PACKAGING STYLE	F指±1%
	F REFERS TO ±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)
SNC683B;3950F0603E	68K	3950	≥ 2	≤ 3	200	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

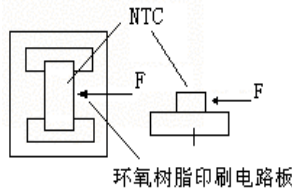
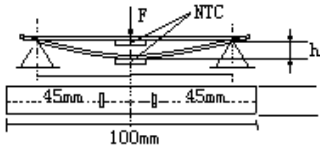
3、检验规则 INSPECTION REGULATIONS

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°C高精度油槽内稳定后 测量 THE PRODUCT TO BE MEASURED IS PLACED IN A 25°C HIGH PRECISION OIL TANK FOR STABILITY	68KΩ±1%
(2)	B _{25/50}	将待测品置于25°C、50°C精度油槽内稳 定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A 25°C, 50°C 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	用精度不小于0.01mm的游标卡尺测量 MEASURE WITH VERNIER CALIPER WITH ACCURACY NOT LESS THAN 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°C; 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\%$
-----	------------------------------	---	---

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	 F: 0603 $\geq$ 8N	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 $\pm$ 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	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

	STORAGE			$ \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	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

 $R_{25}=68K\Omega\pm1\%$
 $B_{25/85}=3950K\pm1\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	2398.8042	2512.0881	2630.4588	-1	231.9013	237.1886	242.5722
-39	2238.6629	2342.7485	2451.4284	0	220.2340	225.1379	230.1279
-38	2090.3815	2186.0590	2285.8871	1	209.2274	213.7754	218.4005
-37	1953.0000	2040.9876	2132.7260	2	198.8401	203.0579	207.3444
-36	1825.6427	1906.5933	1990.9343	3	189.0337	192.9449	196.9173
-35	1707.5095	1782.0175	1859.5908	4	179.7722	183.3987	187.0796
-34	1597.8699	1666.4762	1737.8544	5	171.0222	174.3842	177.7946
-33	1496.0555	1559.2530	1624.9576	6	162.7523	165.8687	169.0279
-32	1401.4551	1459.6929	1520.1989	7	154.9335	157.8217	160.7476
-31	1313.5090	1367.1969	1422.9370	8	147.5385	150.2146	152.9239
-30	1231.7046	1281.2165	1332.5853	9	140.5418	143.0208	145.5290
-29	1155.5721	1201.2492	1248.6068	10	133.9198	136.2156	138.5368
-28	1084.6805	1126.8345	1170.5097	11	127.6501	129.7756	131.9232
-27	1018.6343	1057.5502	1097.8431	12	121.7121	123.6791	125.6654
-26	957.0703	993.0088	1030.1937	13	116.0862	117.9060	119.7423
-25	899.6550	932.8544	967.1822	14	110.7544	112.4371	114.1340
-24	846.0816	876.7601	908.4602	15	105.6994	107.2548	108.8221
-23	796.0680	824.4255	853.7077	16	100.9055	102.3423	103.7892
-22	749.3545	775.5741	802.6308	17	96.3576	97.6841	99.0190
-21	705.7020	729.9515	754.9588	18	92.0418	93.2657	94.4964
-20	664.8902	687.3236	710.4429	19	87.9448	89.0733	90.2072
-19	626.7160	647.4745	668.8538	20	84.0544	85.0941	86.1379
-18	590.9919	610.2054	629.9804	21	80.3590	81.3160	82.2762
-17	557.5452	575.3326	593.6281	22	76.8478	77.7279	78.6102
-16	526.2162	542.6870	559.6174	23	73.5105	74.3190	75.1289
-15	496.8574	512.1122	527.7826	24	70.3375	71.0795	71.8221
-14	469.3324	483.4638	497.9708	25	67.3200	68.0000	68.6800
-13	443.5153	456.6082	470.0407	26	64.3927	65.0717	65.7514
-12	419.2893	431.4222	443.8618	27	61.6095	62.2864	62.9645
-11	396.5464	407.7915	419.3134	28	58.9625	59.6363	60.3118
-10	375.1867	385.6103	396.2839	29	56.4445	57.1142	57.7860
-9	355.1174	364.7808	374.6697	30	54.0483	54.7131	55.3805
-8	336.2526	345.2123	354.3753	31	51.7675	52.4265	53.0887
-7	318.5127	326.8207	335.3119	32	49.5958	50.2485	50.9048
-6	301.8236	309.5280	317.3973	33	47.5275	48.1733	48.8230
-5	286.1168	293.2618	300.5553	34	45.5570	46.1954	46.8381
-4	271.3283	277.9550	284.7152	35	43.6793	44.3099	44.9451
-3	257.3990	263.5452	269.8112	36	41.8895	42.5118	43.1391
-2	244.2738	249.9744	255.7824	37	40.1830	40.7968	41.4158

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	38.5554	39.1604	39.7709	82	7.7252	7.9723	8.2265
39	37.0028	37.5987	38.2004	83	7.4793	7.7210	7.9698
40	35.5213	36.1079	36.7006	84	7.2424	7.4789	7.7223
41	34.1072	34.6845	35.2679	85	7.0142	7.2455	7.4836

42	32.7572	33.3249	33.8990	86	6.7942	7.0204	7.2535
43	31.4679	32.0260	32.5908	87	6.5821	6.8035	7.0315
44	30.2364	30.7849	31.3401	88	6.3777	6.5942	6.8174
45	29.0598	29.5985	30.1442	89	6.1806	6.3924	6.6108
46	27.9353	28.4643	29.0004	90	5.9905	6.1977	6.4114
47	26.8604	27.3797	27.9062	91	5.8071	6.0098	6.2190
48	25.8326	26.3422	26.8591	92	5.6302	5.8285	6.0332
49	24.8497	25.3496	25.8569	93	5.4595	5.6536	5.8539
50	23.9093	24.3996	24.8975	94	5.2948	5.4847	5.6807
51	23.0096	23.4904	23.9788	95	5.1358	5.3216	5.5135
52	22.1485	22.6198	23.0988	96	4.9823	5.1641	5.3519
53	21.3241	21.7861	22.2558	97	4.8341	5.0120	5.1958
54	20.5348	20.9875	21.4480	98	4.6910	4.8650	5.0450
55	19.7788	20.2223	20.6738	99	4.5528	4.7231	4.8993
56	19.0546	19.4891	19.9315	100	4.4193	4.5859	4.7584
57	18.3607	18.7863	19.2198	101	4.2903	4.4534	4.6222
58	17.6956	18.1124	18.5372	102	4.1656	4.3252	4.4905
59	17.0581	17.4662	17.8823	103	4.0452	4.2014	4.3632
60	16.4469	16.8465	17.2540	104	3.9287	4.0816	4.2400
61	15.8607	16.2518	16.6510	105	3.8161	3.9658	4.1209
62	15.2984	15.6813	16.0721	106	3.7073	3.8538	4.0057
63	14.7589	15.1336	15.5164	107	3.6020	3.7454	3.8942
64	14.2411	14.6079	14.9827	108	3.5002	3.6406	3.7863
65	13.7442	14.1031	14.4700	109	3.4018	3.5392	3.6818
66	13.2671	13.6184	13.9775	110	3.3065	3.4411	3.5807
67	12.8090	13.1527	13.5043	111	3.2143	3.3461	3.4828
68	12.3690	12.7053	13.0494	112	3.1251	3.2541	3.3881
69	11.9463	12.2753	12.6122	113	3.0388	3.1651	3.2963
70	11.5402	11.8621	12.1917	114	2.9552	3.0789	3.2074
71	11.1499	11.4648	11.7874	115	2.8743	2.9954	3.1213
72	10.7747	11.0828	11.3985	116	2.7959	2.9145	3.0379
73	10.4140	10.7154	11.0244	117	2.7200	2.8362	2.9570
74	10.0672	10.3620	10.6644	118	2.6465	2.7603	2.8787
75	9.7336	10.0220	10.3179	119	2.5753	2.6868	2.8028
76	9.4127	9.6948	9.9844	120	2.5064	2.6155	2.7292
77	9.1040	9.3799	9.6633	121	2.4395	2.5465	2.6578
78	8.8069	9.0768	9.3541	122	2.3748	2.4795	2.5886
79	8.5209	8.7849	9.0562	123	2.3120	2.4146	2.5215
80	8.2456	8.5039	8.7693	124	2.2512	2.3517	2.4565
81	7.9805	8.2331	8.4929	125	2.1922	2.2907	2.3934