

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	SNC103B ₂ 3500F0603EH
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 103 B₁ 4050 F 0603 E H
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨

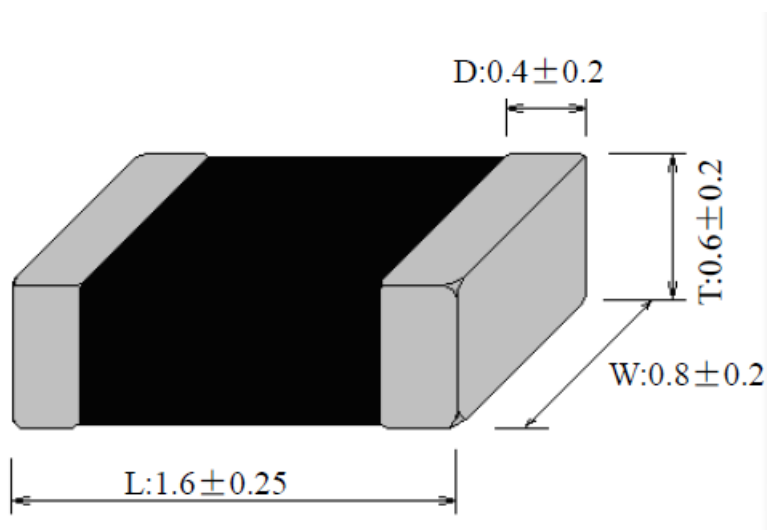
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	103指10KΩ
	103 MEANS 10KΩ;
④ B 值代码 B-VALUE CODE	B2指 25/85
	B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3500指B值为3500K
	3500 MEANS THAT B VALUE IS 3500K
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.
⑨ 特殊定义 SPECIAL DEFINITION	H表示产品阻值误差±1%，B值误差±3%。
	H INDICATES THE PRODUCT RESISTANCE ERROR OF ±1%, B VALUE ERROR OF ±3%.

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)
SNC103B23500F0603EH	10K	3500	≥ 2	≤ 3	200	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

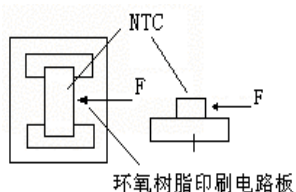
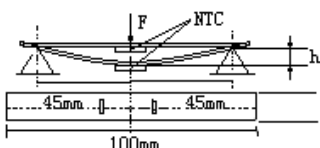
3、检验规则 INSPECTION REGULATIONS

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	10KΩ±1%
(2)	B _{25/85}	将待测品置于 25°C、85°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	3500K±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 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$\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 $^{\circ}$ 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	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

$R_{25}=10K\Omega\pm 1\%$
 $B_{25/85}=3500K\pm 3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	211.3918	234.7307	260.6204	-1	28.6072	29.8602	31.1650
-39	199.2649	220.8610	244.7733	0	27.3689	28.5286	29.7345
-38	187.9228	207.9126	230.0057	1	26.1921	27.2648	28.3787
-37	177.3095	195.8179	216.2366	2	25.0732	26.0650	27.0932
-36	167.3730	184.5148	203.3918	3	24.0092	24.9254	25.8740
-35	158.0656	173.9461	191.4028	4	22.9970	23.8428	24.7172
-34	149.3431	164.0590	180.2069	5	22.0338	22.8140	23.6194
-33	141.1649	154.8050	169.7462	6	21.1169	21.8359	22.5771
-32	133.4932	146.1393	159.9674	7	20.2439	20.9058	21.5872
-31	126.2934	138.0205	150.8215	8	19.4123	20.0210	20.6468
-30	119.5331	130.4105	142.2634	9	18.6200	19.1791	19.7531
-29	113.1828	123.2739	134.2514	10	17.8648	18.3778	18.9035
-28	107.2146	116.5782	126.7469	11	17.1449	17.6148	18.0957
-27	101.6032	110.2932	119.7145	12	16.4584	16.8881	17.3272
-26	96.3249	104.3910	113.1213	13	15.8035	16.1957	16.5960
-25	91.3576	98.8458	106.9371	14	15.1786	15.5360	15.9001
-24	86.6811	93.6337	101.1338	15	14.5822	14.9070	15.2375
-23	82.2764	88.7324	95.6855	16	14.0128	14.3073	14.6065
-22	78.1259	84.1215	90.5682	17	13.4690	13.7352	14.0053
-21	74.2133	79.7818	85.7595	18	12.9496	13.1895	13.4325
-20	70.5235	75.6956	81.2390	19	12.4533	12.6686	12.8864
-19	67.0423	71.8466	76.9874	20	11.9789	12.1714	12.3658
-18	63.7567	68.2194	72.9871	21	11.5253	11.6966	11.8693
-17	60.6543	64.7998	69.2217	22	11.0916	11.2431	11.3955
-16	57.7238	61.5746	65.6757	23	10.6768	10.8099	10.9435
-15	54.9546	58.5316	62.3352	24	10.2799	10.3958	10.5120
-14	52.3367	55.6593	59.1868	25	9.9000	10.0000	10.1000
-13	49.8611	52.9470	56.2184	26	9.5143	9.6215	9.7290
-12	47.5190	50.3849	53.4184	27	9.1459	9.2596	9.3738
-11	45.3024	47.9637	50.7764	28	8.7938	8.9133	9.0336
-10	43.2038	45.6748	48.2824	29	8.4573	8.5820	8.7077
-9	41.2162	43.5101	45.9272	30	8.1355	8.2648	8.3953
-8	39.3331	41.4622	43.7022	31	7.8279	7.9612	8.0960
-7	37.5482	39.5239	41.5994	32	7.5336	7.6704	7.8090
-6	35.8560	37.6889	39.6114	33	7.2520	7.3919	7.5338
-5	34.2510	35.9508	37.7313	34	6.9825	7.1251	7.2699
-4	32.7281	34.3041	35.9524	35	6.7245	6.8694	7.0167
-3	31.2828	32.7434	34.2688	36	6.4775	6.6243	6.7737
-2	29.9105	31.2636	32.6747	37	6.2409	6.3893	6.5405
T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	6.0143	6.1639	6.3166	82	1.4242	1.5222	1.6267

39	5.7972	5.9477	6.1016	83	1.3834	1.4798	1.5828
40	5.5890	5.7403	5.8950	84	1.3440	1.4389	1.5403
41	5.3895	5.5412	5.6967	85	1.3059	1.3993	1.4992
42	5.1982	5.3502	5.5060	86	1.2691	1.3610	1.4593
43	5.0147	5.1667	5.3228	87	1.2335	1.3239	1.4207
44	4.8387	4.9906	5.1467	88	1.1990	1.2879	1.3833
45	4.6698	4.8214	4.9773	89	1.1657	1.2531	1.3471
46	4.5078	4.6588	4.8145	90	1.1334	1.2195	1.3119
47	4.3522	4.5026	4.6578	91	1.1022	1.1869	1.2779
48	4.2028	4.3525	4.5071	92	1.0720	1.1553	1.2449
49	4.0593	4.2082	4.3621	93	1.0428	1.1246	1.2128
50	3.9215	4.0694	4.2225	94	1.0144	1.0950	1.1818
51	3.7891	3.9359	4.0881	95	0.9870	1.0662	1.1517
52	3.6618	3.8075	3.9586	96	0.9605	1.0384	1.1225
53	3.5395	3.6840	3.8340	97	0.9348	1.0114	1.0942
54	3.4219	3.5651	3.7139	98	0.9099	0.9852	1.0667
55	3.3089	3.4507	3.5983	99	0.8857	0.9598	1.0400
56	3.2001	3.3406	3.4868	100	0.8623	0.9352	1.0142
57	3.0955	3.2345	3.3794	101	0.8397	0.9113	0.9890
58	2.9949	3.1323	3.2758	102	0.8177	0.8882	0.9647
59	2.8980	3.0339	3.1759	103	0.7964	0.8657	0.9410
60	2.8048	2.9391	3.0796	104	0.7758	0.8439	0.9180
61	2.7150	2.8478	2.9867	105	0.7557	0.8228	0.8957
62	2.6286	2.7597	2.8971	106	0.7363	0.8022	0.8740
63	2.5454	2.6748	2.8106	107	0.7175	0.7823	0.8529
64	2.4652	2.5930	2.7271	108	0.6992	0.7630	0.8324
65	2.3879	2.5141	2.6466	109	0.6815	0.7442	0.8126
66	2.3135	2.4379	2.5688	110	0.6643	0.7260	0.7932
67	2.2417	2.3645	2.4937	111	0.6476	0.7082	0.7745
68	2.1726	2.2936	2.4212	112	0.6314	0.6910	0.7562
69	2.1059	2.2252	2.3511	113	0.6157	0.6743	0.7385
70	2.0416	2.1592	2.2834	114	0.6004	0.6581	0.7212
71	1.9795	2.0955	2.2180	115	0.5856	0.6423	0.7044
72	1.9197	2.0340	2.1548	116	0.5712	0.6270	0.6881
73	1.8619	1.9745	2.0937	117	0.5573	0.6121	0.6723
74	1.8062	1.9171	2.0347	118	0.5437	0.5976	0.6568
75	1.7524	1.8617	1.9776	119	0.5305	0.5835	0.6418
76	1.7005	1.8081	1.9223	120	0.5177	0.5698	0.6272
77	1.6504	1.7563	1.8689	121	0.5052	0.5565	0.6130
78	1.6020	1.7063	1.8172	122	0.4931	0.5436	0.5992
79	1.5552	1.6579	1.7672	123	0.4814	0.5310	0.5857
80	1.5100	1.6111	1.7189	124	0.4700	0.5188	0.5726
81	1.4664	1.5659	1.6720	125	0.4589	0.5069	0.5598