

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 3500H0603EC
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 B₂ 3500 H 0603 E C
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨

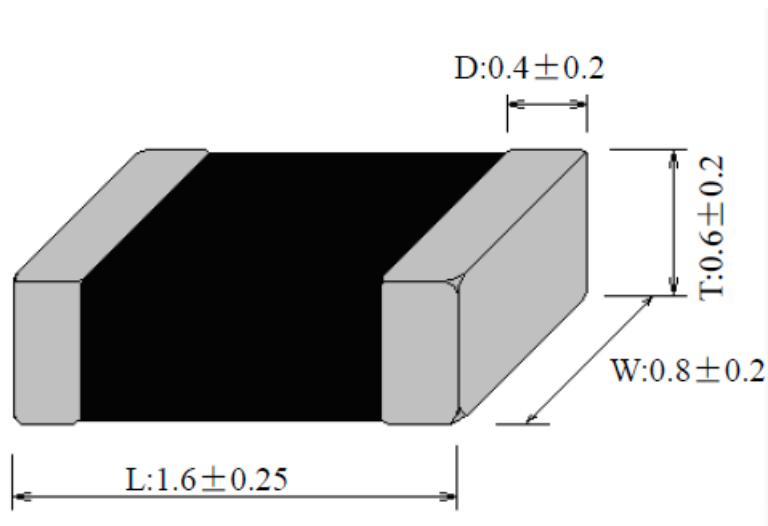
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	103指10KΩ
	103 MEANS 10 KΩ
④ B 值代码 B-VALUE CODE	B2指 25/85
	B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3500指B值为3500K
	3500 MEANS THAT B VALUE IS 3500K
⑥ 阻值误差 PACKAGING STYLE	H指±3%
	H MEANS ±3%
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	C表示B值误差±3%。
	C MEANS THE ERROR OF B VALUE IS ±3%.

2、产品特性 PRODUCTION FEATURES⑨

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)
SNC103B ₂ 3500H0603EC	10K	3500	≥2	≤3	200	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

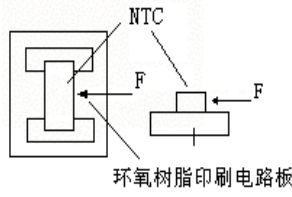
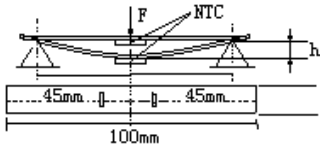
3、检验规则 INSPECTION REGULATIONS

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℃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	10KΩ±3%
(2)	B _{25/50}	将待测品置于25℃、85℃精度油槽内稳 定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A 25℃, 85℃ 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℃; 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	 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 ± 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	IEC68-2-1	温度 TEMPERATURE: -40 ± 2°C 时间 TIME: 1000 ± 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

$R_{25}=10K\Omega\pm3\%$
 $B_{25/50}=3500K\pm3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	207.1212	234.7307	265.7812	-1	28.0292	29.8602	31.7821
-39	195.2393	220.8610	249.6203	0	26.8160	28.5286	30.3233
-38	184.1264	207.9126	234.5603	1	25.6629	27.2648	28.9406
-37	173.7275	195.8179	220.5186	2	24.5667	26.0650	27.6297
-36	163.9917	184.5148	207.4194	3	23.5242	24.9254	26.3863
-35	154.8723	173.9461	195.1930	4	22.5325	23.8428	25.2067
-34	146.3261	164.0590	183.7754	5	21.5887	22.8140	24.0871
-33	138.3131	154.8050	173.1075	6	20.6903	21.8359	23.0241
-32	130.7964	146.1393	163.1351	7	19.8349	20.9058	22.0146
-31	123.7420	138.0205	153.8081	8	19.0201	20.0210	21.0556
-30	117.1183	130.4105	145.0805	9	18.2438	19.1791	20.1442
-29	110.8962	123.2739	136.9098	10	17.5039	18.3778	19.2778
-28	105.0487	116.5782	129.2567	11	16.7986	17.6148	18.4540
-27	99.5506	110.2932	122.0851	12	16.1259	16.8881	17.6703
-26	94.3789	104.3910	115.3614	13	15.4843	16.1957	16.9247
-25	89.5120	98.8458	109.0547	14	14.8720	15.5360	16.2149
-24	84.9300	93.6337	103.1365	15	14.2876	14.9070	15.5392
-23	80.6142	88.7324	97.5803	16	13.7297	14.3073	14.8957
-22	76.5476	84.1215	92.3616	17	13.1969	13.7352	14.2827
-21	72.7141	79.7818	87.4577	18	12.6880	13.1895	13.6985
-20	69.0988	75.6956	82.8476	19	12.2017	12.6686	13.1416
-19	65.6879	71.8466	78.5119	20	11.7369	12.1714	12.6107
-18	62.4686	68.2194	74.4324	21	11.2925	11.6966	12.1043
-17	59.4289	64.7998	70.5924	22	10.8676	11.2431	11.6212
-16	56.5576	61.5746	66.9763	23	10.4611	10.8099	11.1602
-15	53.8444	58.5316	63.5696	24	10.0722	10.3958	10.7202
-14	51.2794	55.6593	60.3588	25	9.7000	10.0000	10.3000
-13	48.8538	52.9470	57.3316	26	9.3221	9.6215	9.9217
-12	46.5590	50.3849	54.4762	27	8.9611	9.2596	9.5594
-11	44.3872	47.9637	51.7819	28	8.6161	8.9133	9.2125
-10	42.3310	45.6748	49.2385	29	8.2864	8.5820	8.8801
-9	40.3836	43.5101	46.8366	30	7.9712	8.2648	8.5616
-8	38.5385	41.4622	44.5676	31	7.6697	7.9612	8.2563
-7	36.7897	39.5239	42.4232	32	7.3814	7.6704	7.9637
-6	35.1316	37.6889	40.3958	33	7.1055	7.3919	7.6830
-5	33.5590	35.9508	38.4784	34	6.8414	7.1251	7.4139
-4	32.0670	34.3041	36.6643	35	6.5887	6.8694	7.1556
-3	30.6508	32.7434	34.9474	36	6.3466	6.6243	6.9078
-2	29.3062	31.2636	33.3218	37	6.1149	6.3893	6.6700
T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)

38	5.8928	6.1639	6.4416	82	1.3954	1.5222	1.6589
39	5.6800	5.9477	6.2224	83	1.3555	1.4798	1.6142
40	5.4761	5.7403	6.0118	84	1.3169	1.4389	1.5708
41	5.2806	5.5412	5.8095	85	1.2796	1.3993	1.5289
42	5.0932	5.3502	5.6151	86	1.2435	1.3610	1.4882
43	4.9134	5.1667	5.4282	87	1.2086	1.3239	1.4488
44	4.7410	4.9906	5.2486	88	1.1748	1.2879	1.4107
45	4.5755	4.8214	5.0759	89	1.1421	1.2531	1.3737
46	4.4167	4.6588	4.9098	90	1.1105	1.2195	1.3379
47	4.2642	4.5026	4.7501	91	1.0799	1.1869	1.3032
48	4.1179	4.3525	4.5964	92	1.0503	1.1553	1.2695
49	3.9773	4.2082	4.4484	93	1.0217	1.1246	1.2369
50	3.8423	4.0694	4.3061	94	0.9939	1.0950	1.2052
51	3.7125	3.9359	4.1690	95	0.9671	1.0662	1.1745
52	3.5879	3.8075	4.0370	96	0.9411	1.0384	1.1447
53	3.4680	3.6840	3.9099	97	0.9159	1.0114	1.1159
54	3.3528	3.5651	3.7875	98	0.8915	0.9852	1.0878
55	3.2420	3.4507	3.6695	99	0.8678	0.9598	1.0606
56	3.1355	3.3406	3.5558	100	0.8449	0.9352	1.0342
57	3.0330	3.2345	3.4463	101	0.8227	0.9113	1.0086
58	2.9344	3.1323	3.3406	102	0.8012	0.8882	0.9838
59	2.8395	3.0339	3.2388	103	0.7803	0.8657	0.9596
60	2.7481	2.9391	3.1406	104	0.7601	0.8439	0.9362
61	2.6602	2.8478	3.0458	105	0.7405	0.8228	0.9134
62	2.5755	2.7597	2.9544	106	0.7215	0.8022	0.8913
63	2.4939	2.6748	2.8663	107	0.7030	0.7823	0.8698
64	2.4154	2.5930	2.7811	108	0.6851	0.7630	0.8489
65	2.3397	2.5141	2.6990	109	0.6677	0.7442	0.8286
66	2.2667	2.4379	2.6197	110	0.6509	0.7260	0.8089
67	2.1964	2.3645	2.5431	111	0.6345	0.7082	0.7898
68	2.1287	2.2936	2.4691	112	0.6187	0.6910	0.7712
69	2.0633	2.2252	2.3977	113	0.6033	0.6743	0.7531
70	2.0003	2.1592	2.3287	114	0.5883	0.6581	0.7355
71	1.9395	2.0955	2.2620	115	0.5738	0.6423	0.7184
72	1.8809	2.0340	2.1975	116	0.5597	0.6270	0.7017
73	1.8243	1.9745	2.1352	117	0.5460	0.6121	0.6856
74	1.7697	1.9171	2.0750	118	0.5327	0.5976	0.6698
75	1.7170	1.8617	2.0167	119	0.5198	0.5835	0.6545
76	1.6661	1.8081	1.9604	120	0.5072	0.5698	0.6396
77	1.6170	1.7563	1.9059	121	0.4950	0.5565	0.6251
78	1.5696	1.7063	1.8532	122	0.4832	0.5436	0.6110
79	1.5238	1.6579	1.8022	123	0.4717	0.5310	0.5973
80	1.4795	1.6111	1.7529	124	0.4605	0.5188	0.5839
81	1.4368	1.5659	1.7051	125	0.4496	0.5069	0.5709