

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 3435F0402ET
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 3435 F 0402 E T
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨

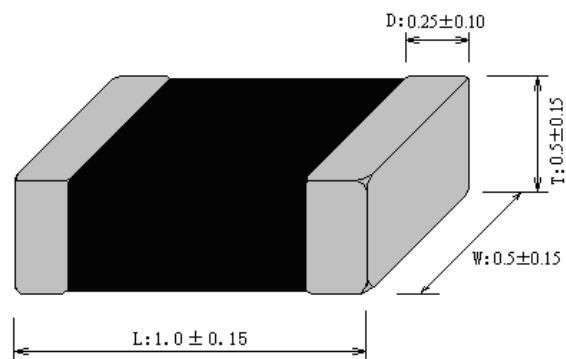
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值（25℃零功率电阻值） PRODUCT RESISTANCE (25℃ ZERO POWER RESISTANCE)	103指10KΩ
	103 MEANS 10 KΩ
④ B 值代码 B-VALUE CODE	B2指 25/85
	B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3435指B值为3435K
	3435 MEANS THAT B VALUE IS 3435K
⑥ 阻值误差 PACKAGING STYLE	F指±1%
	F REFERS TO ±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
⑨ 特殊码 SPECIAL CODE	T表示客户名称。
	T STANDS FOR CUSTOMER NAME.

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)
SNC103B:3435F0402ET	10K	3435	≥ 1	≤ 3	100	-40~125

2.2 外形尺寸 PRODUCTION DIMENSION



(单位UNIT: MM)

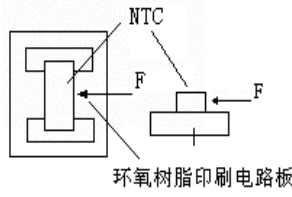
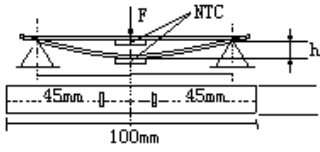
3、检验规则 INSPECTION REGULATIONS

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°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 _{25/50}	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, 85°C PRECISION OIL TANK AND THEN MEASURED	3435K±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\%$
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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: 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 ± 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	0402纸带, 标准带轮 0402 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

 $R_{25}=10K\Omega\pm1\%$
 $B_{25/85}=3950K\pm1\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	212.0153	220.8889	230.1108	-1	28.6432	29.2447	29.8558
-39	199.8448	208.0846	216.6426	0	27.4021	27.9650	28.5366
-38	188.4623	196.1166	204.0614	1	26.2226	26.7494	27.2840
-37	177.8114	184.9244	192.3028	2	25.1013	25.5943	26.0943
-36	167.8401	174.4525	181.3073	3	24.0350	24.4962	24.9639
-35	158.5003	164.6495	171.0202	4	23.0206	23.4522	23.8895
-34	149.7478	155.4682	161.3910	5	22.0554	22.4591	22.8680
-33	141.5416	146.8649	152.3732	6	21.1366	21.5143	21.8965
-32	133.8440	138.7994	143.9239	7	20.2617	20.6150	20.9723
-31	126.6200	131.2344	136.0033	8	19.4285	19.7588	20.0928
-30	119.8373	124.1355	128.5749	9	18.6346	18.9435	19.2555
-29	113.4661	117.4708	121.6048	10	17.8780	18.1667	18.4583
-28	107.4785	111.2110	115.0617	11	17.1567	17.4266	17.6989
-27	101.8490	105.3288	108.9166	12	16.4689	16.7210	16.9753
-26	96.5538	99.7989	103.1426	13	15.8129	16.0483	16.2857
-25	91.5709	94.5978	97.7150	14	15.1869	15.4067	15.6282
-24	86.8797	89.7039	92.6106	15	14.5894	14.7946	15.0012
-23	82.4614	85.0971	87.8082	16	14.0191	14.2105	14.4031
-22	78.2982	80.7585	83.2879	17	13.4744	13.6529	13.8325
-21	74.3738	76.6710	79.0312	18	12.9541	13.1205	13.2878
-20	70.6729	72.8183	75.0212	19	12.4570	12.6120	12.7677
-19	67.1815	69.1854	71.2420	20	11.9818	12.1262	12.2711
-18	63.8862	65.7584	67.6787	21	11.5276	11.6620	11.7967
-17	60.7748	62.5243	64.3177	22	11.0933	11.2182	11.3435
-16	57.8359	59.4711	61.1463	23	10.6779	10.7940	10.9102
-15	55.0589	56.5874	58.1525	24	10.2804	10.3882	10.4961
-14	52.4338	53.8628	55.3252	25	9.9000	10.0000	10.1000
-13	49.9513	51.2875	52.6542	26	9.5287	9.6286	9.7285
-12	47.6028	48.8524	50.1299	27	9.1734	9.2731	9.3729
-11	45.3803	46.5491	47.7432	28	8.8334	8.9327	9.0322
-10	43.2761	44.3694	45.4858	29	8.5079	8.6068	8.7059
-9	41.2833	42.3062	43.3500	30	8.1963	8.2946	8.3932
-8	39.3953	40.3523	41.3284	31	7.8979	7.9955	8.0936
-7	37.6060	38.5014	39.4142	32	7.6120	7.7089	7.8063
-6	35.9095	36.7474	37.6010	33	7.3380	7.4342	7.5308
-5	34.3005	35.0846	35.8830	34	7.0755	7.1708	7.2666
-4	32.7739	33.5077	34.2545	35	6.8238	6.9182	7.0131
-3	31.3251	32.0118	32.7103	36	6.5824	6.6759	6.7699
-2	29.9496	30.5923	31.2456	37	6.3510	6.4434	6.5365

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	6.1289	6.2203	6.3124	82	1.5320	1.5764	1.6218
39	5.9158	6.0061	6.0972	83	1.4898	1.5333	1.5780
40	5.7114	5.8005	5.8905	84	1.4489	1.4917	1.5355
41	5.5150	5.6031	5.6920	85	1.4094	1.4513	1.4944

42	5.3265	5.4135	5.5013	86	1.3711	1.4123	1.4546
43	5.1455	5.2313	5.3179	87	1.3340	1.3745	1.4161
44	4.9716	5.0562	5.1417	88	1.2981	1.3379	1.3787
45	4.8045	4.8879	4.9723	89	1.2633	1.3024	1.3425
46	4.6439	4.7261	4.8093	90	1.2297	1.2680	1.3074
47	4.4896	4.5706	4.6526	91	1.1970	1.2347	1.2734
48	4.3412	4.4210	4.5018	92	1.1654	1.2024	1.2404
49	4.1985	4.2771	4.3567	93	1.1348	1.1711	1.2085
50	4.0612	4.1386	4.2170	94	1.1051	1.1408	1.1775
51	3.9292	4.0054	4.0826	95	1.0764	1.1114	1.1474
52	3.8021	3.8771	3.9531	96	1.0485	1.0829	1.1183
53	3.6798	3.7536	3.8285	97	1.0214	1.0552	1.0900
54	3.5621	3.6347	3.7084	98	0.9952	1.0284	1.0626
55	3.4488	3.5202	3.5927	99	0.9698	1.0024	1.0359
56	3.3396	3.4099	3.4812	100	0.9451	0.9771	1.0101
57	3.2345	3.3036	3.3738	101	0.9212	0.9526	0.9850
58	3.1332	3.2011	3.2702	102	0.8979	0.9288	0.9607
59	3.0356	3.1024	3.1703	103	0.8754	0.9058	0.9370
60	2.9416	3.0072	3.0740	104	0.8536	0.8834	0.9141
61	2.8509	2.9155	2.9811	105	0.8323	0.8616	0.8918
62	2.7635	2.8269	2.8915	106	0.8117	0.8405	0.8702
63	2.6793	2.7416	2.8051	107	0.7917	0.8200	0.8492
64	2.5980	2.6592	2.7216	108	0.7723	0.8001	0.8287
65	2.5196	2.5797	2.6411	109	0.7535	0.7807	0.8089
66	2.4439	2.5030	2.5633	110	0.7351	0.7619	0.7896
67	2.3709	2.4290	2.4883	111	0.7173	0.7437	0.7709
68	2.3005	2.3575	2.4158	112	0.7001	0.7259	0.7527
69	2.2324	2.2885	2.3457	113	0.6833	0.7087	0.7350
70	2.1668	2.2218	2.2781	114	0.6669	0.6919	0.7178
71	2.1034	2.1575	2.2127	115	0.6511	0.6756	0.7010
72	2.0421	2.0952	2.1495	116	0.6357	0.6598	0.6847
73	1.9830	2.0351	2.0885	117	0.6207	0.6444	0.6689
74	1.9258	1.9770	2.0294	118	0.6061	0.6294	0.6535
75	1.8706	1.9209	1.9724	119	0.5919	0.6148	0.6386
76	1.8172	1.8666	1.9172	120	0.5782	0.6007	0.6240
77	1.7656	1.8141	1.8638	121	0.5648	0.5869	0.6098
78	1.7157	1.7634	1.8122	122	0.5518	0.5735	0.5960
79	1.6675	1.7143	1.7622	123	0.5391	0.5604	0.5826
80	1.6208	1.6668	1.7139	124	0.5267	0.5477	0.5695
81	1.5757	1.6208	1.6671	125	0.5147	0.5354	0.5568