

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	SNC104B23975F0603EH
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 104 B₂ 3975 F 0603 E H
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨

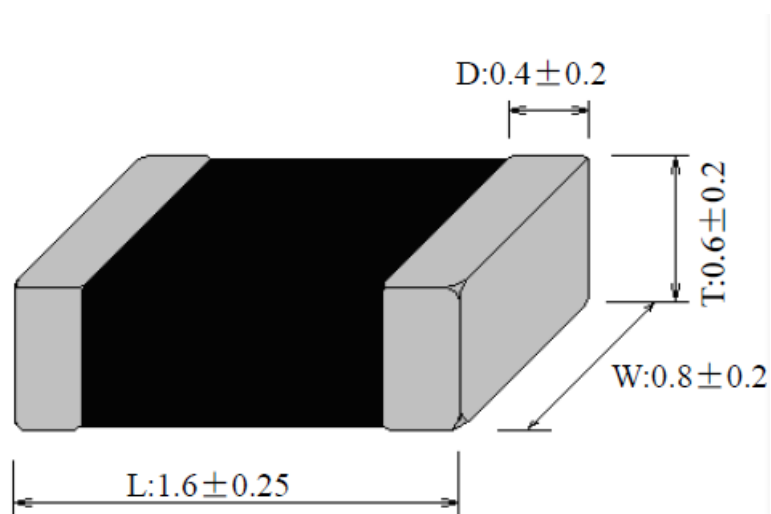
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	104指100KΩ
	104 MEANS 100KΩ;
④ B 值代码 B-VALUE CODE	B2指 25/85
	B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3975指B值为3975K
	3975 MEANS THAT B VALUE IS 3975K
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表示产品阻值公差为±1%，B值公差为±3%。
	H MEANS THE TOLERANCE OF THE PRODUCT RESISTANCE VALUE IS ±1%, AND THE TOLERANCE OF THE B VALUE IS ±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)
SNC104B ₂ 3975F0603EH	100K	3975	≥ 2	≤ 3	200	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



(单位UNIT: MM)

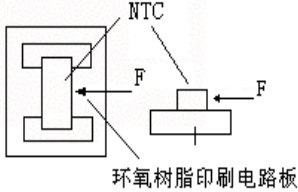
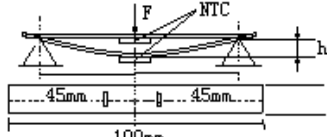
3、检验规则 INSPECTION REGULATIONS

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	100KΩ±1%
(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℃, 50℃ PRECISION OIL TANK AND THEN MEASURED	3975K±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 $\Delta R_{25}/R_{25}$ ≤ 2% $\Delta B/B$ ≤ 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

 $R_{25}=100K\Omega\pm1\%$
 $B_{25/50}=3975K\pm3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	3252.3423	3659.8645	4118.0378	-1	331.5834	347.6909	364.5445
-39	3039.9994	3413.7787	3833.1322	0	315.2706	330.0703	345.5302
-38	2843.0738	3186.0343	3570.0092	1	299.8635	313.4539	327.6274
-37	2660.3399	2975.1382	3326.8539	2	285.3066	297.7785	310.7646
-36	2490.6776	2779.7286	3102.0146	3	271.5477	282.9853	294.8752
-35	2333.0626	2598.5627	2893.9869	4	258.5385	269.0194	279.8972
-34	2186.5574	2430.5054	2701.3998	5	246.2337	255.8297	265.7730
-33	2050.3036	2274.5196	2523.0029	6	234.5910	243.3684	252.4489
-32	1923.5147	2129.6567	2357.6550	7	223.5710	231.5911	239.8749
-31	1805.4694	1995.0489	2204.3143	8	213.1366	220.4563	228.0045
-30	1695.5061	1869.9015	2062.0285	9	203.2533	209.9251	216.7942
-29	1593.0177	1753.4867	1929.9272	10	193.8889	199.9614	206.2034
-28	1497.4461	1645.1370	1807.2137	11	185.0131	190.5313	196.1944
-27	1408.2788	1544.2404	1693.1589	12	176.5977	181.6032	186.7319
-26	1325.0444	1450.2350	1587.0950	13	168.6160	173.1474	177.7829
-25	1247.3090	1362.6050	1488.4095	14	161.0433	165.1364	169.3166
-24	1174.6734	1280.8762	1396.5411	15	153.8563	157.5441	161.3042
-23	1106.7696	1204.6127	1310.9745	16	147.0332	150.3463	153.7188
-22	1043.2586	1133.4137	1231.2365	17	140.5534	143.5204	146.5353
-21	983.8279	1066.9099	1156.8924	18	134.3978	137.0449	139.7301
-20	928.1888	1004.7616	1087.5427	19	128.5483	130.8999	133.2812
-19	876.0752	946.6555	1022.8197	20	122.9880	125.0667	127.1679
-18	827.2411	892.3028	962.3854	21	117.7010	119.5278	121.3709
-17	781.4591	841.4372	905.9281	22	112.6724	114.2667	115.8721
-16	738.5191	793.8127	853.1610	23	107.8880	109.2679	110.6544
-15	698.2266	749.2024	803.8195	24	103.3347	104.5169	105.7021
-14	660.4018	707.3965	757.6597	25	99.0000	100.0000	101.0000
-13	624.8778	668.2010	714.4564	26	94.6227	95.7044	96.7889
-12	591.5005	631.4367	674.0018	27	90.4641	91.6182	92.7777
-11	560.1266	596.9375	636.1040	28	86.5121	87.7298	88.9558
-10	530.6235	564.5499	600.5854	29	82.7553	84.0287	85.3132
-9	502.8679	534.1315	567.2820	30	79.1830	80.5049	81.8406
-8	476.7456	505.5504	536.0419	31	75.7853	77.1489	78.5292
-7	452.1505	478.6844	506.7248	32	72.5525	73.9518	75.3705
-6	428.9838	453.4201	479.2004	33	69.4758	70.9052	72.3568
-5	407.1540	429.6522	453.3482	34	66.5469	68.0013	69.4805
-4	386.5756	407.2829	429.0564	35	63.7578	65.2326	66.7347
-3	367.1695	386.2215	406.2215	36	61.1012	62.5921	64.1129
-2	348.8616	366.3837	384.7473	37	58.5701	60.0732	61.6086

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	56.1578	57.6696	59.2161	82	10.9444	11.7873	12.6939
39	53.8583	55.3755	56.9298	83	10.5901	11.4167	12.3065
40	51.6655	53.1853	54.7443	84	10.2490	11.0595	11.9328
41	49.5740	51.0938	52.6548	85	9.9205	10.7151	11.5723

42	47.5786	49.0959	50.6565	86	9.6040	10.3831	11.2243
43	45.6744	47.1871	48.7450	87	9.2992	10.0630	10.8885
44	43.8568	45.3629	46.9160	88	9.0055	9.7543	10.5643
45	42.1213	43.6191	45.1656	89	8.7224	9.4565	10.2513
46	40.4639	41.9518	43.4900	90	8.4495	9.1691	9.9490
47	38.8806	40.3571	41.8855	91	8.1865	8.8919	9.6571
48	37.3677	38.8317	40.3489	92	7.9329	8.6243	9.3751
49	35.9218	37.3720	38.8769	93	7.6883	8.3660	9.1026
50	34.5395	35.9751	37.4665	94	7.4524	8.1167	8.8393
51	33.2178	34.6377	36.1147	95	7.2248	7.8759	8.5848
52	31.9536	33.3572	34.8189	96	7.0052	7.6434	8.3389
53	30.7442	32.1307	33.5764	97	6.7933	7.4188	8.1011
54	29.5869	30.9558	32.3848	98	6.5887	7.2018	7.8712
55	28.4793	29.8301	31.2418	99	6.3913	6.9922	7.6489
56	27.4189	28.7511	30.1451	100	6.2006	6.7896	7.4338
57	26.4035	27.7168	29.0926	101	6.0166	6.5938	7.2258
58	25.4309	26.7251	28.0823	102	5.8388	6.4046	7.0245
59	24.4992	25.7740	27.1124	103	5.6670	6.2216	6.8298
60	23.6065	24.8616	26.1809	104	5.5011	6.0447	6.6413
61	22.7508	23.9863	25.2863	105	5.3408	5.8736	6.4589
62	21.9306	23.1462	24.4268	106	5.1859	5.7081	6.2823
63	21.1441	22.3399	23.6010	107	5.0361	5.5480	6.1113
64	20.3898	21.5658	22.8073	108	4.8914	5.3931	5.9457
65	19.6662	20.8224	22.0443	109	4.7514	5.2432	5.7854
66	18.9720	20.1084	21.3107	110	4.6161	5.0982	5.6301
67	18.3058	19.4225	20.6052	111	4.4852	4.9578	5.4796
68	17.6663	18.7634	19.9266	112	4.3586	4.8218	5.3338
69	17.0524	18.1300	19.2738	113	4.2361	4.6902	5.1925
70	16.4628	17.5211	18.6456	114	4.1176	4.5628	5.0556
71	15.8966	16.9358	18.0411	115	4.0029	4.4394	4.9229
72	15.3526	16.3728	17.4591	116	3.8919	4.3198	4.7943
73	14.8300	15.8314	16.8988	117	3.7845	4.2040	4.6695
74	14.3277	15.3106	16.3592	118	3.6805	4.0918	4.5486
75	13.8449	14.8094	15.8396	119	3.5798	3.9830	4.4313
76	13.3807	14.3271	15.3390	120	3.4823	3.8777	4.3175
77	12.9344	13.8629	14.8566	121	3.3878	3.7755	4.2072
78	12.5051	13.4160	14.3918	122	3.2964	3.6765	4.1001
79	12.0921	12.9856	13.9438	123	3.2077	3.5805	3.9962
80	11.6948	12.5712	13.5119	124	3.1219	3.4874	3.8954
81	11.3124	12.1719	13.0955	125	3.0387	3.3971	3.7975