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	SNC104B13950F0603EH
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

REVISION LIST			
版 本 EDITION	修订时间 REVISION TIME	制 定 FORMULATE	修 订 内 容 REVISED CONTENT
1.0	2021-12-16	李保健 LI BAOJIAN	初始发行 INITIAL ISSUE

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	104	B_1	3950	F	0603	E	H
①	②	③	④	④	⑥	⑦	⑧	⑨

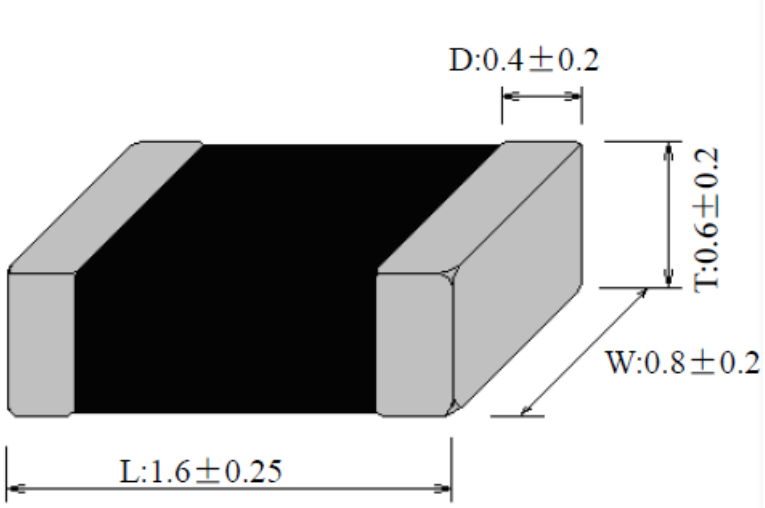
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻; SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片 C REFERS TO THE PATCH
③ 产品阻值（25°C零功率电阻值） PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	104指100KΩ; 104 MEANS 100 KΩ
④ B 值代码 B-VALUE CODE	B1指 25/50; B1 MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	3950指B值为3950K 3950 MEANS THAT B VALUE IS 3950K
⑥ 阻值误差 PACKAGING STYLE	F指±1%; F 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)
SNC104B3950F0603EH	100K	3950	≥2	≤3	200	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



（单位UNIT：MM）

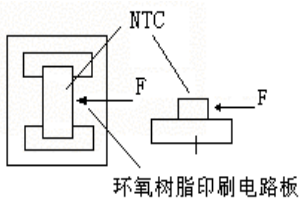
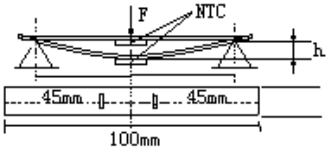
3、 检验规则 INSPECTION REGULATIONS

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℃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℃、50℃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	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±10℃ 浸入时间 IMMERSION TIME：10±1s	无外观损伤，着锡面积≥75% NO APPEARANCE DAMAGE, TIN AREA ≥75% $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$

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≥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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 3\%$
(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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 1\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 2\%$

				｜△B/ B｜≤2%
(8)	耐久性 DURABILITY	UL1434	环境温度 ENVIRONMENT TEMPERATURE：25±2°C 工作电流 WORKING CURRENT 周期 PERIOD：6000	无外观损伤 NO COSMETIC DAMAGE ｜$\triangle R_{25}/ R_{25}$｜≤5% ｜△B/ B｜≤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°C~+40°C、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}=100KΩ±1%

$B_{25/50}$=3950K±3%

T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
-40	3281.9757	3694.2472	4157.8910	-1	332.6156	348.8068	365.7496
-39	3067.1531	3445.2184	3869.4981	0	316.2107	331.0851	346.6244
-38	2867.9632	3214.7927	3603.2047	1	300.7188	314.3756	328.6198
-37	2683.1608	3001.4524	3357.1657	2	286.0835	298.6146	311.6633
-36	2511.6081	2803.8137	3129.7021	3	272.2525	283.7425	295.6878
-35	2352.2646	2620.6140	2919.2852	4	259.1767	269.7040	280.6308
-34	2204.1782	2450.7003	2724.5218	5	246.8104	256.4474	266.4340
-33	2066.4773	2293.0191	2544.1416	6	235.1111	243.9246	253.0432
-32	1938.3635	2146.6073	2376.9856	7	224.0388	232.0907	240.4080
-31	1819.1047	2010.5837	2221.9956	8	213.5562	220.9038	228.4813
-30	1708.0296	1884.1419	2078.2050	9	203.6286	210.3247	217.2193
-29	1604.5219	1766.5429	1944.7299	10	194.2234	200.3170	206.5812
-28	1508.0158	1657.1096	1820.7618	11	185.3099	190.8464	196.5287
-27	1417.9912	1555.2209	1705.5609	12	176.8598	181.8811	187.0262
-26	1333.9700	1460.3071	1598.4494	13	168.8462	173.3912	178.0406
-25	1255.5124	1371.8447	1498.8062	14	161.2441	165.3487	169.5408
-24	1182.2135	1289.3531	1406.0618	15	154.0301	157.7276	161.4977
-23	1113.7005	1212.3904	1319.6937	16	147.1821	150.5034	153.8842
-22	1049.6298	1140.5501	1239.2222	17	140.6795	143.6531	146.6750
-21	989.6845	1073.4581	1164.2065	18	134.5029	137.1554	139.8462
-20	933.5723	1010.7700	1094.2418	19	128.6342	130.9901	133.3758
-19	881.0236	952.1684	1028.9554	20	123.0563	125.1383	127.2428
-18	831.7892	897.3608	968.0048	21	117.7531	119.5824	121.4279
-17	785.6389	846.0774	911.0742	22	112.7096	114.3057	115.9128
-16	742.3599	798.0691	857.8732	23	107.9117	109.2927	110.6802
-15	701.7553	753.1062	808.1338	24	103.3460	104.5287	105.7143
-14	663.6431	710.9761	761.6090	25	99.0000	100.0000	101.0000
-13	627.8545	671.4827	718.0708	26	94.6118	95.6937	96.7784
-12	594.2333	634.4444	677.3089	27	90.4433	91.5977	92.7576
-11	562.6347	599.6933	639.1289	28	86.4823	87.7005	88.9269
-10	532.9245	567.0740	603.3513	29	82.7175	83.9914	85.2765
-9	504.9781	536.4424	569.8101	30	79.1379	80.4604	81.7967
-8	478.6799	507.6652	538.3517	31	75.7336	77.0978	78.4788
-7	453.9226	480.6187	508.8339	32	72.4950	73.8949	75.3143
-6	430.6064	455.1882	481.1252	33	69.4131	70.8431	72.2953
-5	408.6386	431.2674	455.1038	34	66.4796	67.9345	69.4143
-4	387.9331	408.7574	430.6565	35	63.6864	65.1616	66.6643
-3	368.4097	387.5665	407.6787	36	61.0262	62.5174	64.0387
-2	349.9937	367.6094	386.0731	37	58.4919	59.9952	61.5311
T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
38	56.0768	57.5888	59.1357	82	10.8839	11.7240	12.6278
39	53.7749	55.2922	56.8468	83	10.5307	11.3545	12.2415
40	51.5801	53.0999	54.6591	84	10.1907	10.9984	11.8689
41	49.4869	51.0065	52.5676	85	9.8632	10.6551	11.5094
42	47.4901	49.0072	50.5677	86	9.5479	10.3242	11.1625
43	45.5847	47.0971	48.6548	87	9.2441	10.0051	10.8277

44	43.7661	45.2718	46.8247	88	8.9514	9.6974	10.5045
45	42.0300	43.5272	45.0733	89	8.6693	9.4006	10.1925
46	40.3720	41.8593	43.3970	90	8.3975	9.1143	9.8912
47	38.7884	40.2642	41.7920	91	8.1354	8.8380	9.6003
48	37.2754	38.7385	40.2550	92	7.8828	8.5714	9.3193
49	35.8295	37.2788	38.7828	93	7.6391	8.3141	9.0478
50	34.4474	35.8818	37.3723	94	7.4041	8.0657	8.7854
51	33.1259	34.5447	36.0206	95	7.1775	7.8258	8.5319
52	31.8621	33.2644	34.7249	96	6.9588	7.5942	8.2869
53	30.6532	32.0383	33.4828	97	6.7478	7.3705	8.0500
54	29.4965	30.8639	32.2916	98	6.5441	7.1545	7.8210
55	28.3895	29.7387	31.1490	99	6.3475	6.9457	7.5995
56	27.3298	28.6604	30.0528	100	6.1577	6.7440	7.3854
57	26.3152	27.6269	29.0010	101	5.9745	6.5491	7.1782
58	25.3435	26.6359	27.9914	102	5.7975	6.3606	6.9778
59	24.4127	25.6857	27.0222	103	5.6266	6.1785	6.7839
60	23.5209	24.7742	26.0916	104	5.4614	6.0024	6.5962
61	22.6663	23.8998	25.1978	105	5.3019	5.8321	6.4146
62	21.8471	23.0607	24.3393	106	5.1477	5.6673	6.2388
63	21.0617	22.2554	23.5143	107	4.9987	5.5080	6.0686
64	20.3085	21.4823	22.7216	108	4.8547	5.3539	5.9038
65	19.5860	20.7399	21.9596	109	4.7155	5.2047	5.7441
66	18.8929	20.0270	21.2270	110	4.5808	5.0604	5.5896
67	18.2279	19.3422	20.5226	111	4.4506	4.9207	5.4398
68	17.5896	18.6842	19.8451	112	4.3247	4.7854	5.2947
69	16.9768	18.0520	19.1933	113	4.2029	4.6545	5.1542
70	16.3884	17.4442	18.5662	114	4.0850	4.5277	5.0179
71	15.8234	16.8600	17.9628	115	3.9710	4.4050	4.8859
72	15.2806	16.2982	17.3819	116	3.8606	4.2861	4.7579
73	14.7591	15.7580	16.8227	117	3.7538	4.1709	4.6338
74	14.2580	15.2383	16.2843	118	3.6504	4.0593	4.5135
75	13.7764	14.7383	15.7657	119	3.5503	3.9512	4.3969
76	13.3134	14.2571	15.2662	120	3.4533	3.8464	4.2837
77	12.8682	13.7940	14.7850	121	3.3594	3.7448	4.1740
78	12.4400	13.3482	14.3213	122	3.2685	3.6464	4.0675
79	12.0282	12.9190	13.8744	123	3.1804	3.5509	3.9642
80	11.6320	12.5057	13.4436	124	3.0951	3.4584	3.8639
81	11.2508	12.1076	13.0283	125	3.0124	3.3686	3.7666