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	SNC224B$_1$4500G0402EL
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	2022-01-18	李保健 LI BAOJIAN	初始发行 INITIAL ISSUE

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1、 规格型号 PART IDENTIFICATION

SN	C	103	B_1	3380	F	0603	E	N
①	②	③	④	④	⑥	⑦	⑧	⑨

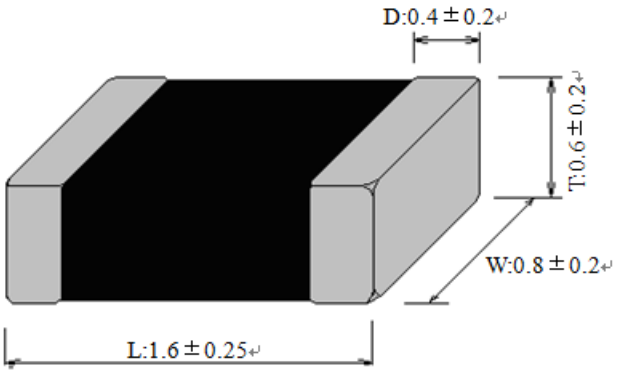
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻; SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片 C REFERS TO THE PATCH
③ 产品阻值（25°C零功率电阻值） PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	103指10KΩ 103 MEANS 10KΩ;
④ B 值代码 B-VALUE CODE	B1指 25/50 B1 MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	3380指B值为3380K 3380 MEANS THAT B VALUE IS 3380K
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; E IS FOR ENVIRONMENTAL PROTECTION
⑨ 特殊码 SPECIAL CODE	N指特殊码。 N IS A SPECIAL CODE.

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$_1$3380F0603EN	10K	3380	≥2	≤3	200	-40~150

2.2 外形尺寸PRODUCTION DIMENSION



（单位UNIT：MM）

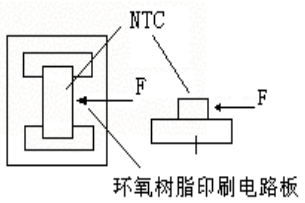
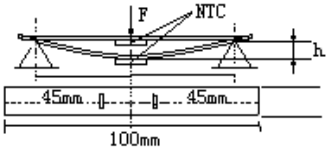
3、 检验规则 INSPECTION REGULATIONS

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±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	3380K±1%
(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 NO APPEARANCE DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$

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, +150°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}=10KΩ±1%

$B_{25/50}$=3380K±1%

T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
-40	208.1261	216.7963	225.8051	-1	28.4621	29.0579	29.6632
-39	196.2500	204.3042	212.6676	0	27.2361	27.7938	28.3602
-38	185.1388	192.6235	200.3908	1	26.0706	26.5928	27.1227
-37	174.7380	181.6961	188.9124	2	24.9623	25.4511	25.9469
-36	164.9974	171.4682	178.1750	3	23.9082	24.3657	24.8295
-35	155.8704	161.8903	168.1258	4	22.9051	23.3333	23.7672
-34	147.3143	152.9165	158.7158	5	21.9503	22.3511	22.7569
-33	139.2895	144.5047	149.9002	6	21.0412	21.4163	21.7958
-32	131.7594	136.6160	141.6374	7	20.1755	20.5263	20.8812
-31	124.6902	129.2142	133.8890	8	19.3506	19.6788	20.0106
-30	118.0506	122.2661	126.6195	9	18.5646	18.8715	19.1817
-29	111.8116	115.7409	119.7962	10	17.8152	18.1023	18.3921
-28	105.9464	109.6099	113.3886	11	17.1007	17.3691	17.6399
-27	100.4301	103.8467	107.3688	12	16.4192	16.6700	16.9229
-26	95.2397	98.4269	101.7107	13	15.7689	16.0033	16.2395
-25	90.3537	93.3278	96.3901	14	15.1483	15.3672	15.5877
-24	85.7524	88.5283	91.3848	15	14.5559	14.7602	14.9660
-23	81.4172	84.0087	86.6740	16	13.9901	14.1809	14.3728
-22	77.3311	79.7511	82.2385	17	13.4497	13.6277	13.8066
-21	73.4782	75.7384	78.0604	18	12.9334	13.0994	13.2661
-20	69.8435	71.9551	74.1231	19	12.4400	12.5947	12.7500
-19	66.4135	68.3866	70.4112	20	11.9683	12.1124	12.2570
-18	63.1751	65.0192	66.9103	21	11.5172	11.6514	11.7859
-17	60.1166	61.8404	63.6072	22	11.0858	11.2106	11.3356
-16	57.2268	58.8384	60.4893	23	10.6731	10.7891	10.9052
-15	54.4952	56.0023	57.5452	24	10.2781	10.3858	10.4937
-14	51.9124	53.3218	54.7640	25	9.9000	10.0000	10.1000
-13	49.4691	50.7874	52.1357	26	9.5308	9.6307	9.7307
-12	47.1570	48.3903	49.6510	27	9.1775	9.2772	9.3770
-11	44.9683	46.1222	47.3010	28	8.8394	8.9387	9.0382
-10	42.8956	43.9753	45.0778	29	8.5156	8.6144	8.7136
-9	40.9320	41.9425	42.9736	30	8.2055	8.3038	8.4024
-8	39.0711	40.0168	40.9814	31	7.9084	8.0061	8.1042
-7	37.3069	38.1921	39.0944	32	7.6238	7.7208	7.8182
-6	35.6338	36.4624	37.3066	33	7.3510	7.4472	7.5439
-5	34.0466	34.8223	35.6120	34	7.0895	7.1849	7.2807
-4	32.5403	33.2664	34.0054	35	6.8388	6.9332	7.0283
-3	31.1102	31.7900	32.4814	36	6.5983	6.6918	6.7859
-2	29.7522	30.3886	31.0355	37	6.3676	6.4601	6.5533
T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
38	6.1463	6.2377	6.3299	82	1.5488	1.5934	1.6392
39	5.9339	6.0242	6.1154	83	1.5063	1.5502	1.5951

40	5.7299	5.8192	5.9093	84	1.4652	1.5083	1.5525
41	5.5341	5.6223	5.7113	85	1.4255	1.4677	1.5111
42	5.3460	5.4331	5.5210	86	1.3869	1.4285	1.4711
43	5.1654	5.2513	5.3381	87	1.3496	1.3904	1.4323
44	4.9918	5.0766	5.1622	88	1.3135	1.3536	1.3948
45	4.8250	4.9086	4.9931	89	1.2785	1.3179	1.3583
46	4.6647	4.7471	4.8304	90	1.2447	1.2833	1.3230
47	4.5105	4.5917	4.6739	91	1.2118	1.2498	1.2888
48	4.3623	4.4423	4.5233	92	1.1800	1.2173	1.2556
49	4.2197	4.2985	4.3783	93	1.1492	1.1858	1.2235
50	4.0826	4.1601	4.2388	94	1.1193	1.1553	1.1923
51	3.9506	4.0270	4.1044	95	1.0903	1.1256	1.1620
52	3.8236	3.8987	3.9750	96	1.0622	1.0969	1.1326
53	3.7013	3.7753	3.8504	97	1.0350	1.0691	1.1042
54	3.5836	3.6564	3.7303	98	1.0085	1.0420	1.0765
55	3.4702	3.5418	3.6146	99	0.9829	1.0158	1.0497
56	3.3610	3.4315	3.5031	100	0.9581	0.9904	1.0237
57	3.2558	3.3251	3.3956	101	0.9339	0.9657	0.9984
58	3.1545	3.2226	3.2919	102	0.9105	0.9417	0.9739
59	3.0568	3.1238	3.1919	103	0.8878	0.9184	0.9500
60	2.9626	3.0285	3.0955	104	0.8658	0.8959	0.9269
61	2.8718	2.9366	3.0025	105	0.8443	0.8739	0.9044
62	2.7843	2.8480	2.9128	106	0.8236	0.8526	0.8826
63	2.6999	2.7624	2.8262	107	0.8034	0.8319	0.8614
64	2.6184	2.6799	2.7426	108	0.7838	0.8118	0.8408
65	2.5398	2.6003	2.6619	109	0.7648	0.7923	0.8208
66	2.4640	2.5234	2.5840	110	0.7463	0.7733	0.8013
67	2.3908	2.4492	2.5087	111	0.7283	0.7549	0.7824
68	2.3202	2.3775	2.4361	112	0.7109	0.7370	0.7640
69	2.2520	2.3083	2.3658	113	0.6939	0.7196	0.7462
70	2.1861	2.2415	2.2980	114	0.6774	0.7027	0.7288
71	2.1225	2.1769	2.2324	115	0.6614	0.6862	0.7119
72	2.0611	2.1145	2.1691	116	0.6458	0.6702	0.6955
73	2.0017	2.0542	2.1078	117	0.6307	0.6547	0.6795
74	1.9443	1.9959	2.0486	118	0.6160	0.6395	0.6639
75	1.8889	1.9395	1.9913	119	0.6016	0.6248	0.6488
76	1.8353	1.8850	1.9359	120	0.5877	0.6105	0.6341
77	1.7834	1.8323	1.8823	121	0.5742	0.5966	0.6198
78	1.7333	1.7813	1.8304	122	0.5610	0.5830	0.6058
79	1.6849	1.7320	1.7803	123	0.5482	0.5698	0.5922
80	1.6380	1.6843	1.7317	124	0.5357	0.5570	0.5790
81	1.5927	1.6381	1.6847	125	0.5236	0.5445	0.5662