

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 SMD NTC THERMISTOR
规 格 型 号 TYPE SPECIFICATION	CN0603R473B4050FT
承认书版本号 APPROVAL SHEET VERSION	4.0
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		

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1、规格型号 PART IDENTIFICATION

CN	0603	R473	B4050	F	T
①	②	③	④	⑤	⑥

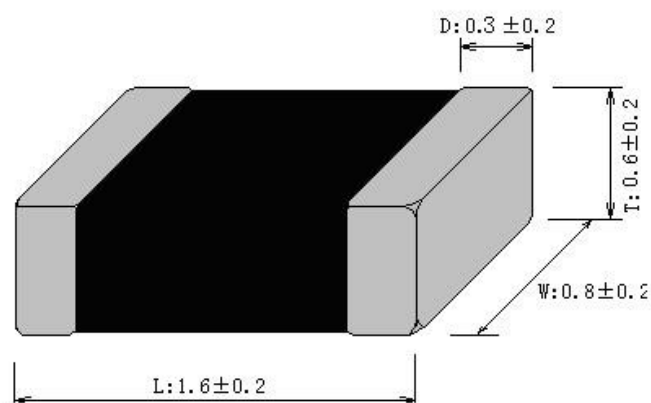
① 产品系列 PRODUCT FAMILY	CN 指贴片型负温度系数热敏电阻;
	CN REFERS TO SMD TYPE NEGATIVE TEMPERATURE COEFFICIENT THERMISTORS
② 产品尺寸 PRODUCT SIZE	0603 指 2.2 图所示尺寸;
	0402 REFERS TO THE SIZE SHOWN IN FIGURE 2.2
③ 产品阻值 (25°C零功率电阻值) PRODUCTION RESISTANCE (ZERO POWER RESISTANCE AT 25°C)	R473 指 47KΩ;
	R473 STANDS FOR 47KΩ
④ B 值数值 B-VALUE TOLERANCE	4050 指 B 值为 4050K;
	B4050 MEANS THAT THE B VALUE IS 4050K
⑤ 阻值误差 RESISTANCE ERROR	F 指±1%;
	F INDICATES ±5%
⑥ 包装方式 PACKAGING METHOD	T 指盘装;
	T FINGER PLATE MOUNTING

2、 产品特性 PRODUCTION FEATURES

2.1 技术参数 TECHNICAL PARAMETER

规格型号 PART NO.	额定零功率电阻值 ZERO POWER RESISTANCE AT 25°C $R_{25}(Ω)$	B (K)	耗散系数 DISSIPATION FACTOR (mw/°C)	热时间常数(S) THERMAL TIME CONSTANT	额定功率 Max. POWER RATING AT 25°C (mw)	工作温度范围 OPERATING TEMPERATURE RANGE (°C)
CN0603R473B4050FT	47K	4050	≥ 2	≤ 3	200	-40 ~ 125

2.2 外形尺寸 PRODUCTION DIMENSION



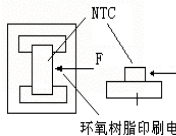
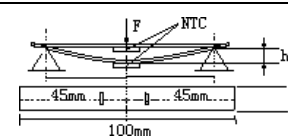
DRAWING 2.2 单位 (unit): mm

3、 检验规则 INSPECTION REGULATIONS

3.1 出厂检验 DELIVERY INSPECTION

序号 SEQUENCE	检验项目 ITEMS	检验方法 METHOD	性能要求 PERFORMANCE REQUIREMENTS	检测水平 INSPECTI ON LEVEL	AQL
(1)	R ₂₅	将待测品置于 25℃高精度油槽内稳定后测量 IMMERSE SAMPLES IN A 25℃ HIGH-PRECISION OIL TANK AND MEASURE IT	47KΩ±1%	II	0.15
(2)	B _{25/50}	将待测品置于 25℃、50℃高精度油槽内稳定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A HIGH PRECISION OIL THANK AT 25℃,50℃ AND THEN MEASURED	4050K±1%	II	1.0
(3)	外观 APPEARANCE	在 20X 的显微镜下目测检查 VISUAL INSPECTION UNDER A 20X MICROSCOPE	符合图 2.2 的外形要求，无腐蚀、流挂、断片、崩边、崩角等 MEETS THE SHAPE REQUIREMENTS OF THE DRAWING 2.2, WITHOUT CORROSION, SAGGING, FRAGMENTATION, CHIPPING, ETC.	II	0.65
(4)	尺寸 DIMENSION	用精度不小于0.01mm的游标卡尺测量 MEASURE WITH CALIPER WITH AN ACCURACY OF NOT LESS THAN 0.01MM	符合图 2.2 的外形尺寸 MEETS THE SHAPE REQUIREMENTS OF THE DRAWING 2.2	II	1.0
(5)	可焊性 SOLDERABILITY	焊接温度 SOLDERING TEMPERATURE: 260±5℃; DIPPING TIME 浸入时间:3±1S	着锡面积≥95% AT LEAST 95% OF TERMINAL ELECTRODE IS COVERED BY NEW SOLDER	S-2	0.65
(6)	耐焊性 RESISTANCE TO SOLDERING HEAT	焊接温度 SOLDERING TEMPERATURE: 280±10℃; DIPPING TIME 浸入时间:10±1S	无外观损伤 NO VISIBLE DAMAGE ΔR25/ R25 ≤5%	S-2	0.65

3.2 型式检验 PATTERN INSPECTION

序号 SEQUENCE	检验项目 ITEMS	检验标准 STANDARD	检验方法 INSPECTION METHOD	性能要求 PERFORMANCE REQUIREMENTS
(1)	端头强度 TERMINAL STRENGTH	IEC68-2-21	 $F \geq 8N$	无外观损伤 NO COSMETIC DAMAGE
(2)	抗弯强度 FLEXTURE STRENGTH	IEC68-2-21	 $h: 1 \pm 0.1mm$	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 3\%$
(3)	跌落 DROP	IEC68-2-32	跌落高度 HEIGHT OF DROP: $1.0 \pm 0.1M$; 跌落次数 NUMBER OF DROPS: 1 跌落面 DROP SURFACE: 水泥地面 CONCRETE FLOOR	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 1\%$ $ \Delta B/B \leq 2\%$
(4)	湿热负载 MOIST HEAT LOAD	IEC68-2-2/ IEC68-2-3 /CNS5550	温度 TEMPERATURE: $40 \pm 2^\circ C$; 湿度 HUMIDITY: $90 \sim 95\%RH$; 时间 TIME: $500 \pm 12H$; 工作电流 OPERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$
(5)	高温负载 HIGH TEMPERATURE STORAGE	IEC68-2-2/ CNS5550	温度: $-40 \pm 125^\circ C$; 时 间: $1000 \pm 24H$; 工作电流 OPERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$
(6)	冷热冲击 RAPID CHANGE OF TEMPERATURE	IEC68-2-14	温度 TEMPERATURE: $-40^\circ C, +125^\circ C$; 周期 CYCLE: 100, 30MIN/CYCLE	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$

(7)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE: - 40 ±2°C; 时间 TIME:1000±24 H	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 2\%$ $ \Delta B/B \leq 2\%$
(8)	耐久性 ENDURANCE	UL1434	环境温度 ENVIRONMENTAL TEMPERATURE:25±2°C; 工作电流 OPERATING CURRENT 周期 CYCLE: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 PACKING MATERIAL,SIZE	产品数量 PART QUANTITY
(1)	编带 TAPING	0603 纸带, 标准带轮 0603 PAPER TAPE,STANDARD TAPE WHEEL	
(2)	内包装盒 INNER BOX	纸箱 CARTON,L×W×H=185mm×70mm×190mm	
(3)	外包装箱 PACKAGING	纸箱 CARTON,L×W×H=370mm×205mm×215mm	

4.2 贮存 STORAGE

产品密封保存, 存放产品的仓库环境温度 - 10℃ ~ + 40℃、相对湿度不大于 70%, 仓库内不允许有各种有害气体、易爆的产品及有腐蚀性的化学物品, 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

R25=47KΩ±1%

B25/50=4050±1%

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	1818.8091	1906.4845	1998.1865	-1	165.4508	169.2773	173.1750
-39	1694.3123	1774.7148	1858.7469	0	156.9176	160.4609	164.0678
-38	1579.2447	1653.0121	1730.0521	1	148.8784	152.1593	155.4970
-37	1472.8275	1540.5380	1611.2003	2	141.3017	144.3394	147.4277
-36	1374.3510	1436.5298	1501.3716	3	134.1580	136.9704	139.8278
-35	1283.1687	1340.2925	1399.8193	4	127.4202	130.0236	132.6670
-34	1198.6906	1251.1926	1305.8636	5	121.0627	123.4724	125.9175
-33	1120.3785	1168.6527	1218.8849	6	115.0618	117.2918	119.5531
-32	1047.7407	1092.1454	1138.3181	7	109.3956	111.4589	113.5498
-31	980.3280	1021.1894	1063.6476	8	104.0432	105.9519	107.8848
-30	917.7295	955.3448	994.4023	9	98.9856	100.7508	102.5372
-29	859.5694	894.2092	930.1520	10	94.2048	95.8368	97.4873
-28	805.5034	837.4147	870.5032	11	89.6841	91.1924	92.7168
-27	755.2162	784.6243	815.0960	12	85.4077	86.8013	88.2088
-26	708.4189	735.5293	763.6008	13	81.3612	82.6482	83.9472
-25	664.8463	689.8467	715.7157	14	77.5308	78.7188	79.9171
-24	624.2551	647.3171	671.1640	15	73.9037	74.9999	76.1047
-23	586.4219	607.7023	629.6920	16	70.4681	71.4789	72.4970
-22	551.1413	570.7836	591.0669	17	67.2127	68.1442	69.0818
-21	518.2246	536.3601	555.0747	18	64.1270	64.9850	65.8478
-20	487.4982	504.2470	521.5190	19	61.2013	61.9909	62.7844
-19	458.8023	474.2744	490.2193	20	58.4264	59.1524	59.8815
-18	431.9897	446.2861	461.0095	21	55.7936	56.4606	57.1299
-17	406.9247	420.1378	433.7366	22	53.2949	53.9071	54.5209
-16	383.4824	395.6971	408.2601	23	50.9228	51.4840	52.0463
-15	361.5474	372.8416	384.4501	24	48.6700	49.1840	49.6984
-14	341.0134	351.4585	362.1872	25	46.5300	47.0000	47.4700
-13	321.7820	331.4436	341.3612	26	44.4563	44.9256	45.3954
-12	303.7624	312.7009	321.8702	27	42.4870	42.9548	43.4234
-11	286.8707	295.1416	303.6205	28	40.6162	41.0817	41.5484
-10	271.0294	278.6835	286.5252	29	38.8385	39.3011	39.7652
-9	256.1665	263.2509	270.5042	30	37.1488	37.6078	38.0686
-8	242.2157	248.7735	255.4833	31	35.5421	35.9970	36.4541
-7	229.1153	235.1863	241.3940	32	34.0141	34.4644	34.9172
-6	216.8083	222.4291	228.1728	33	32.5604	33.0057	33.4538
-5	205.2418	210.4461	215.7609	34	31.1769	31.6169	32.0600
-4	194.3667	199.1857	204.1038	35	29.8600	30.2944	30.7320
-3	184.1375	188.5999	193.1511	36	28.6061	29.0346	29.4665
-2	174.5120	178.6442	182.8560	37	27.4119	27.8342	28.2602

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
38	26.2741	26.6901	27.1100	82	5.0570	5.2215	5.3909
39	25.1898	25.5994	26.0129	83	4.8921	5.0529	5.2186
40	24.1563	24.5592	24.9663	84	4.7334	4.8906	5.0526
41	23.1709	23.5670	23.9676	85	4.5806	4.7343	4.8926
42	22.2310	22.6204	23.0143	86	4.4334	4.5837	4.7385
43	21.3344	21.7169	22.1041	87	4.2917	4.4386	4.5900
44	20.4789	20.8545	21.2349	88	4.1552	4.2988	4.4468
45	19.6623	20.0310	20.4046	89	4.0236	4.1640	4.3088
46	18.8826	19.2444	19.6112	90	3.8969	4.0341	4.1757
47	18.1381	18.4930	18.8530	91	3.7747	3.9089	4.0474
48	17.4269	17.7750	18.1281	92	3.6570	3.7881	3.9236
49	16.7475	17.0886	17.4350	93	3.5434	3.6716	3.8041
50	16.0981	16.4325	16.7721	94	3.4339	3.5593	3.6889
51	15.4774	15.8050	16.1380	95	3.3283	3.4509	3.5776
52	14.8839	15.2048	15.5312	96	3.2265	3.3463	3.4703
53	14.3163	14.6306	14.9504	97	3.1282	3.2454	3.3666
54	13.7733	14.0811	14.3944	98	3.0333	3.1479	3.2665
55	13.2538	13.5551	13.8620	99	2.9418	3.0539	3.1699
56	12.7565	13.0515	13.3520	100	2.8535	2.9630	3.0765
57	12.2806	12.5693	12.8635	101	2.7682	2.8753	2.9864
58	11.8248	12.1074	12.3954	102	2.6858	2.7906	2.8993
59	11.3884	11.6648	11.9468	103	2.6063	2.7088	2.8151
60	10.9703	11.2407	11.5167	104	2.5294	2.6297	2.7337
61	10.5697	10.8342	11.1043	105	2.4552	2.5533	2.6551
62	10.1857	10.4445	10.7088	106	2.3835	2.4795	2.5790
63	9.8177	10.0708	10.3295	107	2.3142	2.4081	2.5055
64	9.4649	9.7124	9.9655	108	2.2472	2.3391	2.4344
65	9.1265	9.3686	9.6161	109	2.1825	2.2724	2.3657
66	8.8020	9.0387	9.2808	110	2.1199	2.2078	2.2992
67	8.4906	8.7220	8.9589	111	2.0594	2.1454	2.2348
68	8.1918	8.4181	8.6497	112	2.0009	2.0850	2.1725
69	7.9050	8.1263	8.3528	113	1.9443	2.0266	2.1123
70	7.6297	7.8460	8.0676	114	1.8895	1.9701	2.0540
71	7.3654	7.5768	7.7935	115	1.8366	1.9154	1.9975
72	7.1115	7.3182	7.5301	116	1.7853	1.8625	1.9428
73	6.8676	7.0697	7.2769	117	1.7357	1.8112	1.8899
74	6.6333	6.8308	7.0335	118	1.6877	1.7616	1.8386
75	6.4082	6.6012	6.7994	119	1.6412	1.7136	1.7890
76	6.1918	6.3805	6.5743	120	1.5962	1.6671	1.7409
77	5.9837	6.1682	6.3577	121	1.5526	1.6220	1.6943
78	5.7837	5.9640	6.1493	122	1.5104	1.5783	1.6492
79	5.5913	5.7675	5.9487	123	1.4695	1.5360	1.6054
80	5.4063	5.5785	5.7557	124	1.4300	1.4951	1.5630
81	5.2283	5.3966	5.5698	125	1.3916	1.4554	1.5219

6、 样品检验报告（如需）SAMPLE INSPECTION REPORT(IF REQUIRED)

检验日期 DATE		环境温度 ENVIRONMENTAL TEMPERATURE		样品数量 SAMPLE QUANTITY	
规格型号 PART TYPE		环境湿度 ENVIRONMENTAL HUMIDITY		抽样数量 SAMPLING QUANTITY	
电性能 ELECTRICAL SPECIFICATION			尺寸 DIMENSION (单位: mm) UNIT :mm		
编号 SEQUENCE	R ₂₅ (KΩ)	B _{25/50} (K)	L	W	T
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					
(11)					
(12)					
(13)					
(14)					
(15)					
(16)					
(17)					
(18)					
(19)					
(20)					
判定 JUDGMENT					
外观 APPEARANCE					
可焊性 SOLDERABILITY					
耐焊性 RESISTANCE TO SOLDERING HEAT					
综合判定 COMPREHENSIVE JUDGMENT					