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	SNC104B$_2$4150F0402E
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
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1、规格型号 PART IDENTIFICATION

SN C 104 B_2 4150 F 0402 E
① ② ③ ④ ④ ⑥ ⑦ ⑧

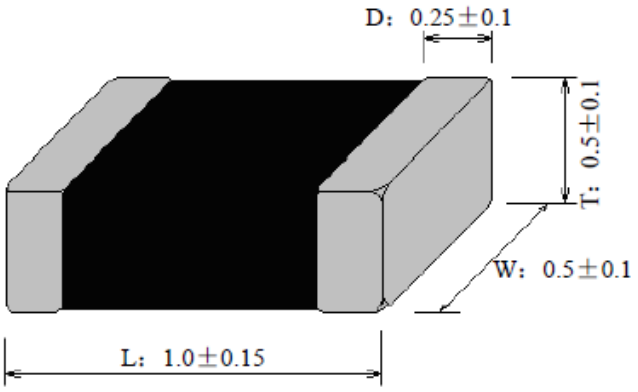
① **产品类别** **PART NUMBER ENTIFICATION**	SN指敏感型负温度系数热敏电阻; SN INDICATES SMD NTC THERMISTOR
② **系列类别** **SERIES CATEGORY**	C指贴片 C REFERS TO THE PATCH
③ **产品阻值（25℃零功率电阻值）** **PRODUCT RESISTANCE (25℃ ZERO POWER RESISTANCE)**	104指100KΩ 104 MEANS 100 KΩ
④ **B 值代码** **B-VALUE CODE**	B2指 25/85 B2 MEANS 25/85
⑤ **B 值数值** **B-VALUE TOLERANCE**	4150指B值为4150K 4150 MEANS THAT B VALUE IS 4150K
⑥ **阻值误差** **PACKAGING STYLE**	F指±1% F MEANS ±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.

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 (℃)
SNC104B24150F0402E	100K	4150	≥1	≤3	100	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



（单位UNIT：MM）

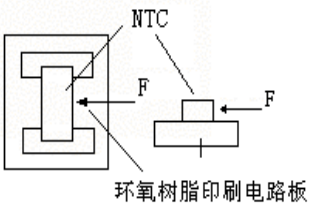
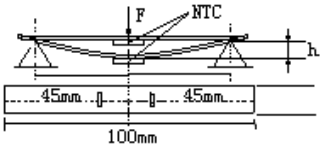
3、 检验规则 INSPECTION REGULATIONS

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℃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)	$B_{25/85}$	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℃, 85℃ PRECISION OIL TANK AND THEN MEASURED	4150K±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℃; 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：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 $\lvert \triangle R_{25}/R_{25} \rvert \leq 3\%$
(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±2°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	IEC68-2-1	温度 TEMPERATURE：-40±2°C 时间 TIME：1000±24h	无外观损伤 NO COSMETIC DAMAGE

	STORAGE			$\lvert \triangle R_{25}/ R_{25} \rvert \leqslant 2\%$ $\lvert \triangle B/ B \rvert \leqslant 2\%$
(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 $\lvert \triangle R_{25}/ R_{25} \rvert \leqslant 5\%$ $\lvert \triangle B/ B \rvert \leqslant 2\%$

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°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%
$B_{25/85}$=4150K±1%

T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
-40	4109.8074	4310.5391	4520.6229	-1	359.3570	367.7446	376.2904
-39	3823.9824	4007.8346	4200.1061	0	340.5280	348.2868	356.1868
-38	3560.1171	3728.5892	3904.6432	1	322.8046	329.9813	337.2839
-37	3316.3737	3470.8240	3632.1041	2	306.1151	312.7530	319.5030
-36	3091.0799	3232.7398	3380.5536	3	290.3931	296.5322	302.7707
-35	2882.7135	3012.6997	3148.2324	4	275.5768	281.2539	287.0191
-34	2689.8877	2809.2138	2933.5400	5	261.6088	266.8578	272.1849
-33	2511.3382	2620.9247	2735.0197	6	248.4353	253.2878	258.2093
-32	2345.9118	2446.5951	2551.3445	7	236.0067	240.4917	245.0375
-31	2192.5559	2285.0964	2381.3046	8	224.2764	228.4209	232.6187
-30	2050.3090	2135.3984	2223.7967	9	213.2012	217.0299	220.9054
-29	1918.2923	1996.5602	2077.8137	10	202.7407	206.2767	209.8534
-28	1795.7021	1867.7219	1942.4360	11	192.8571	196.1217	199.4217
-27	1681.8029	1748.0972	1816.8229	12	183.5154	186.5283	189.5718
-26	1575.9214	1636.9664	1700.2060	13	174.6828	177.4623	180.2679
-25	1477.4405	1533.6707	1591.8818	14	166.3286	168.8915	171.4767
-24	1385.7945	1437.6065	1491.2066	15	158.4241	160.7861	163.1671
-23	1300.4644	1348.2204	1397.5903	16	150.9427	153.1183	155.3098
-22	1220.9741	1265.0048	1310.4923	17	143.8592	145.8619	147.8777
-21	1146.8859	1187.4938	1229.4165	18	137.1503	138.9925	140.8454
-20	1077.7981	1115.2596	1153.9078	19	130.7940	132.4874	134.1892
-19	1013.3409	1047.9091	1083.5482	20	124.7699	126.3251	127.8869
-18	953.1744	985.0809	1017.9536	21	119.0588	120.4857	121.9175
-17	896.9856	926.4425	956.7710	22	113.6425	114.9505	116.2619
-16	844.4862	871.6878	899.6757	23	108.5044	109.7019	110.9016
-15	795.4107	820.5352	846.3686	24	103.6285	104.7235	105.8196
-14	749.5141	772.7249	796.5747	25	99.0000	100.0000	101.0000
-13	706.5706	728.0175	750.0403	26	94.5183	95.5168	96.5163
-12	666.3717	686.1922	706.5316	27	90.2653	91.2605	92.2575
-11	628.7247	647.0453	665.8332	28	86.2281	87.2183	88.2111
-10	593.4519	610.3886	627.7459	29	82.3946	83.3783	84.3653
-9	560.3889	576.0483	592.0861	30	78.7534	79.7293	80.7092
-8	529.3835	543.8637	558.6841	31	75.2938	76.2607	77.2324
-7	500.2950	513.6862	527.3832	32	72.0058	72.9627	73.9250
-6	472.9932	485.3784	498.0382	33	68.8799	69.8260	70.7780
-5	447.3574	458.8131	470.5150	34	65.9073	66.8417	67.7827
-4	423.2758	433.8723	444.6895	35	63.0797	64.0018	64.9309
-3	400.6449	410.4469	420.4466	36	60.3891	61.2984	62.2151
-2	379.3683	388.4356	397.6799	37	57.8284	58.7243	59.6281
T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)	T(℃)	R_{Min}(KΩ)	R_{Nor}(KΩ)	R_{Max}(KΩ)
38	55.3904	56.2725	57.1630	82	10.3859	10.7276	11.0795

39	53.0687	53.9367	54.8135	83	10.0420	10.3759	10.7198
40	50.8572	51.7108	52.5735	84	9.7112	10.0375	10.3736
41	48.7499	49.5890	50.4374	85	9.3929	9.7116	10.0402
42	46.7415	47.5658	48.3998	86	9.0866	9.3980	9.7191
43	44.8269	45.6363	46.4556	87	8.7916	9.0959	9.4098
44	43.0010	43.7955	44.6002	88	8.5077	8.8050	9.1118
45	41.2595	42.0390	42.8289	89	8.2342	8.5247	8.8246
46	39.5979	40.3624	41.1376	90	7.9708	8.2547	8.5478
47	38.0122	38.7618	39.5222	91	7.7171	7.9945	8.2811
48	36.4985	37.2332	37.9789	92	7.4727	7.7438	8.0239
49	35.0531	35.7731	36.5041	93	7.2371	7.5020	7.7758
50	33.6728	34.3780	35.0945	94	7.0101	7.2689	7.5366
51	32.3541	33.0448	33.7468	95	6.7912	7.0442	7.3059
52	31.0940	31.7703	32.4581	96	6.5801	6.8274	7.0833
53	29.8897	30.5518	31.2254	97	6.3766	6.6183	6.8685
54	28.7384	29.3864	30.0460	98	6.1804	6.4166	6.6612
55	27.6375	28.2716	28.9173	99	5.9910	6.2219	6.4611
56	26.5845	27.2049	27.8369	100	5.8083	6.0341	6.2680
57	25.5771	26.1840	26.8026	101	5.6321	5.8527	6.0814
58	24.6131	25.2067	25.8121	102	5.4619	5.6777	5.9013
59	23.6905	24.2710	24.8633	103	5.2977	5.5086	5.7274
60	22.8072	23.3749	23.9543	104	5.1392	5.3454	5.5593
61	21.9614	22.5165	23.0832	105	4.9861	5.1877	5.3969
62	21.1513	21.6940	22.2483	106	4.8383	5.0354	5.2400
63	20.3752	20.9057	21.4478	107	4.6955	4.8882	5.0884
64	19.6316	20.1501	20.6803	108	4.5575	4.7460	4.9418
65	18.9189	19.4257	19.9441	109	4.4242	4.6086	4.8001
66	18.2357	18.7310	19.2378	110	4.2954	4.4757	4.6631
67	17.5806	18.0646	18.5602	111	4.1710	4.3473	4.5306
68	16.9523	17.4253	17.9098	112	4.0506	4.2231	4.4025
69	16.3496	16.8119	17.2855	113	3.9343	4.1030	4.2785
70	15.7714	16.2231	16.6861	114	3.8218	3.9868	4.1586
71	15.2165	15.6579	16.1104	115	3.7131	3.8745	4.0425
72	14.6839	15.1151	15.5575	116	3.6079	3.7658	3.9302
73	14.1726	14.5939	15.0263	117	3.5061	3.6606	3.8215
74	13.6816	14.0933	14.5159	118	3.4076	3.5588	3.7163
75	13.2100	13.6122	14.0253	119	3.3124	3.4603	3.6145
76	12.7570	13.1500	13.5537	120	3.2202	3.3649	3.5158
77	12.3218	12.7057	13.1003	121	3.1309	3.2726	3.4203
78	11.9035	12.2786	12.6642	122	3.0446	3.1832	3.3278
79	11.5015	11.8679	12.2448	123	2.9609	3.0966	3.2381
80	11.1150	11.4730	11.8413	124	2.8800	3.0127	3.1513
81	10.7433	11.0931	11.4531	125	2.8015	2.9315	3.0672