

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	SNC474B14500J0603E
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 474 B₁ 4500 J 0603 E
① ② ③ ④ ④ ⑥ ⑦ ⑧

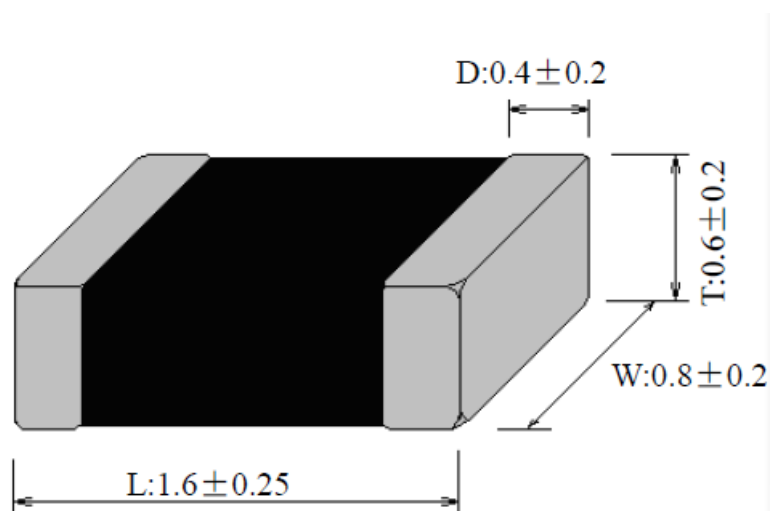
① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	C指贴片
	C REFERS TO THE PATCH
③ 产品阻值 (25°C零功率电阻值) PRODUCT RESISTANCE (25°C ZERO POWER RESISTANCE)	474指470KΩ
	474 MEANS 470KΩ;
④ B 值代码 B-VALUE CODE	B ₁ 指 25/50
	B ₁ MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	4500指B值为4500K
	4500 MEANS THAT B VALUE IS 4500K
⑥ 阻值误差 PACKAGING STYLE	J指±5%;
	J INDICATES ±5%
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

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)
SNC474B ₁ 4500J0603E	470K	4500	≥2	≤3	200	-40~125

2.2 外形尺寸PRODUCTION DIMENSION



(单位UNIT: MM)

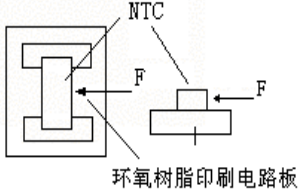
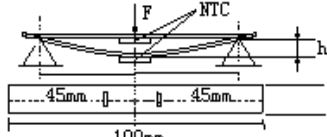
3、检验规则 INSPECTION REGULATIONS

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	470KΩ±5%
(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	4500K±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℃ 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℃ 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℃, +125℃ 周期 PERIOD: 100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $\Delta R_{25}/R_{25}$ ≤5% $\Delta B/B$ ≤2%
(7)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE: -40±2℃ 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

 $R_{25}=470K\Omega\pm5\%$ $B_{25/50}=4500K\pm3\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	24376.6046	29038.6185	34505.7596	-1	1779.7981	1955.3334	2142.8107
-39	22559.4842	26809.6636	31780.9203	0	1679.9175	1842.3082	2015.3456
-38	20891.0010	24767.9117	29290.8811	1	1586.2728	1736.5280	1896.2631
-37	19357.9777	22896.3596	27013.8070	2	1498.4373	1637.4850	1784.9622
-36	17948.4911	21179.6595	24930.0360	3	1416.0161	1544.7104	1680.8883
-35	16651.7455	19603.9475	23021.8489	4	1338.6436	1457.7703	1583.5294
-34	15457.9584	18156.6907	21273.2655	5	1265.9805	1376.2633	1492.4127
-33	14358.2596	16826.5513	19669.8627	6	1197.7125	1299.8180	1407.1013
-32	13344.6000	15603.2650	18198.6139	7	1133.5481	1228.0904	1327.1916
-31	12409.6709	14477.5329	16847.7442	8	1073.2166	1160.7619	1252.3099
-30	11546.8313	13440.9249	15606.6033	9	1016.4667	1097.5371	1182.1107
-29	10750.0425	12485.7928	14465.5507	10	963.0651	1038.1421	1116.2741
-28	10013.8101	11605.1933	13415.8537	11	912.7947	982.3227	1054.5039
-27	9333.1314	10792.8188	12449.5971	12	865.4540	929.8432	996.5254
-26	8703.4487	10042.9350	11559.6007	13	820.8553	880.4845	942.0843
-25	8120.6067	9350.3256	10739.3476	14	778.8242	834.0433	890.9444
-24	7580.8147	8710.2425	9982.9183	15	739.1983	790.3303	842.8869
-23	7080.6125	8118.3605	9284.9324	16	701.8261	749.1700	797.7084
-22	6616.8394	7570.7377	8640.4967	17	666.5667	710.3987	755.2202
-21	6186.6067	7063.7787	8045.1576	18	633.2889	673.8643	715.2470
-20	5787.2726	6594.2024	7494.8596	19	601.8699	639.4253	677.6257
-19	5416.4196	6159.0126	6985.9068	20	572.1957	606.9496	642.2048
-18	5071.8340	5755.4716	6514.9293	21	544.1595	576.3143	608.8434
-17	4751.4878	5381.0764	6078.8523	22	517.6617	547.4050	577.4102
-16	4453.5220	5033.5370	5674.8688	23	492.6096	520.1149	547.7831
-15	4176.2313	4710.7573	5300.4142	24	468.9160	494.3442	519.8484
-14	3918.0507	4410.8174	4953.1447	25	446.5000	470.0000	493.5000
-13	3677.5430	4131.9579	4630.9163	26	424.0069	446.9955	470.0524
-12	3453.3877	3872.5654	4331.7670	27	402.7764	425.2497	447.8545
-11	3244.3711	3631.1596	4053.9003	28	382.7307	404.6868	426.8327
-10	3049.3765	3406.3816	3795.6701	29	363.7972	385.2360	406.9184
-9	2867.3763	3196.9832	3555.5675	30	345.9082	366.8312	388.0471
-8	2697.4243	3001.8173	3332.2083	31	329.0005	349.4104	370.1587
-7	2538.6488	2819.8290	3124.3222	32	313.0149	332.9158	353.1966
-6	2390.2463	2650.0479	2930.7427	33	297.8963	317.2931	337.1079
-5	2251.4757	2491.5807	2750.3982	34	283.5929	302.4915	321.8430
-4	2121.6531	2343.6047	2582.3034	35	270.0564	288.4636	307.3552
-3	2000.1474	2205.3618	2425.5521	36	257.2417	275.1648	293.6009
-2	1886.3753	2076.1529	2279.3105	37	245.1064	262.5533	280.5390

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	233.6110	250.5900	268.1310	82	36.1853	40.9821	46.2987
39	222.7184	239.2382	256.3408	83	34.8547	39.5181	44.6935
40	212.3937	228.4633	245.1343	84	33.5793	38.1135	43.1518
41	202.6044	218.2330	234.4796	85	32.3567	36.7655	41.6706

42	193.3199	208.5171	224.3467	86	31.1845	35.4717	40.2474
43	184.5116	199.2869	214.7072	87	30.0603	34.2295	38.8796
44	176.1526	190.5156	205.5345	88	28.9820	33.0368	37.5647
45	168.2177	182.1781	196.8038	89	27.9475	31.8913	36.3006
46	160.6831	174.2506	188.4913	90	26.9548	30.7909	35.0850
47	153.5266	166.7109	180.5749	91	26.0020	29.7337	33.9159
48	146.7274	159.5381	173.0338	92	25.0874	28.7177	32.7912
49	140.2657	152.7125	165.8481	93	24.2092	27.7412	31.7091
50	134.1230	146.2153	158.9993	94	23.3658	26.8025	30.6678
51	128.2821	140.0293	152.4700	95	22.5558	25.8999	29.6655
52	122.7266	134.1378	146.2437	96	21.7776	25.0319	28.7006
53	117.4410	128.5255	140.3046	97	21.0298	24.1970	27.7716
54	112.4109	123.1777	134.6382	98	20.3112	23.3938	26.8770
55	107.6228	118.0805	129.2305	99	19.6204	22.6210	26.0153
56	103.0636	113.2210	124.0685	100	18.9563	21.8772	25.1852
57	98.7215	108.5869	119.1397	101	18.3176	21.1613	24.3853
58	94.5849	104.1667	114.4325	102	17.7035	20.4721	23.6146
59	90.6430	99.9494	109.9358	103	17.1126	19.8085	22.8717
60	86.8859	95.9248	105.6392	104	16.5442	19.1694	22.1555
61	83.3039	92.0829	101.5327	105	15.9973	18.5538	21.4650
62	79.8880	88.4148	97.6071	106	15.4708	17.9607	20.7992
63	76.6296	84.9116	93.8534	107	14.9641	17.3893	20.1570
64	73.5208	81.5651	90.2634	108	14.4762	16.8386	19.5375
65	70.5540	78.3676	86.8290	109	14.0064	16.3078	18.9398
66	67.7219	75.3118	83.5428	110	13.5540	15.7961	18.3631
67	65.0179	72.3906	80.3977	111	13.1181	15.3027	17.8065
68	62.4355	69.5974	77.3869	112	12.6982	14.8269	17.2692
69	59.9687	66.9262	74.5041	113	12.2936	14.3681	16.7505
70	57.6117	64.3708	71.7432	114	11.9037	13.9254	16.2497
71	55.3591	61.9259	69.0984	115	11.5279	13.4983	15.7661
72	53.2058	59.5860	66.5644	116	11.1655	13.0862	15.2989
73	51.1470	57.3462	64.1359	117	10.8161	12.6885	14.8477
74	49.1781	55.2017	61.8082	118	10.4792	12.3046	14.4117
75	47.2946	53.1480	59.5764	119	10.1542	11.9339	13.9905
76	45.4926	51.1808	57.4362	120	9.8408	11.5761	13.5833
77	43.7681	49.2961	55.3835	121	9.5383	11.2305	13.1898
78	42.1174	47.4901	53.4142	122	9.2464	10.8967	12.8094
79	40.5370	45.7590	51.5246	123	8.9647	10.5743	12.4416
80	39.0236	44.0995	49.7111	124	8.6929	10.2627	12.0859
81	37.5741	42.5082	47.9702	125	8.4304	9.9617	11.7419