

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	敏感型负温度系数热敏电阻 SN NTC THERMISTOR
规格型号 TYPE SPECIFICATION	SNS104B13950JE1L050E15
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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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	4
4、包装、贮存 PACKAGE & STORAGE	6
4.1 包装 PACKAGE	6
4.2 贮存 STORAGE	6
5、电阻－温度特性曲线 RESISTANCE-TEMPERATURE CHARACTERISTIC CURVE	7

1、规格型号 PART IDENTIFICATION

SN	S	104	B ₁	3950	J	E	I	L	050	E	15
①	②	③	④	④	⑥	⑦	⑧	⑨	⑩	⑪	⑫

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 DIMENSION (L×W×T) (MM)	S指传感器;
	S-FINGER SENSOR
③ 产品阻值 (25℃零功率电阻值) PRODUCTION RESISTANCE (ZERO POWER RESISTANCE AT 25℃)	104指100KΩ
	104 MEANS 100 KΩ
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	3950指B值为3950K
	B3950 INDICATE 3950K
⑥ 阻值误差 PACKAGING STYLE	J 指±5%
	J INDICATES ±5%
⑦ 头部外观结构 HEAD APPEARANCE STRUCTURE	E指环氧树脂包封;
	E REFERS TO EPOXY RESIN ENCAPSULATION
⑧ 线材颜色 WIRE COLOR	1指线材颜色为黑色;
	1 THE COLOR OF THE FINGER WIRE IS BLACK
⑨ 线材规格 WIRE SPECIFIVATION	L指UL3302 HF#30单线;
	L MEANS UL3302 HF#30 SINGLE WIRE
⑩ 线材长度 WIRE LENGTH	050指产品总长度为50mm;
	050 REFERS TO THE TOTAL LENGTH OF THE PRODUCT IS 50MM

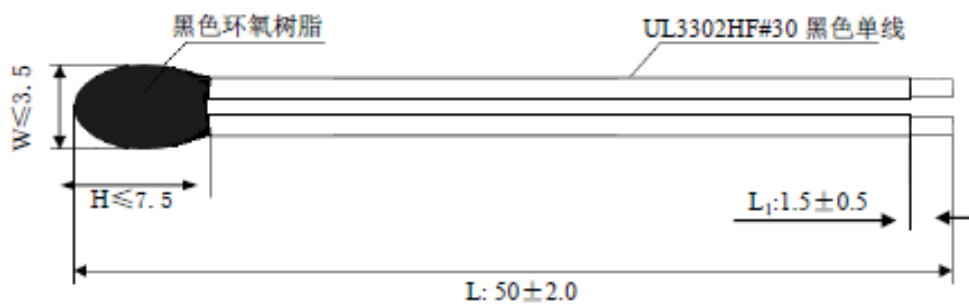
⑪ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保
	E IS FOR ENVIRONMENTAL PROTECTION
⑫ 线尾剥线长度 STRIP LENGTH OF WIRE TAIL	15 指产品线尾剥线长度 1.5mm.
	15 REFERS TO THE PRODUCT LINE TAIL STRIP LENGTH OF 1.5MM.

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 $R_{25}(\Omega)$	B 值常数 B-CONSTANT 25/50°C(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)
SNS103B13950FE1AX050E	100K	3950	≥ 2.5	≤ 20	150	-40 ~ 105

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	检验项目 ITEMS	检验方法 METHOD	性能要求 PERFORMANCE REQUIREMENTS
(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 50℃ HIGH-PRECISION OIL TANK AND MEASURE IT	100KΩ±5%
(2)	B _{25/50}	将待测品置于 25℃、50℃高精度油槽内稳定后测量 IMMERSE SAMPLES IN A 25℃,50℃ HIGH-PRECISION OIL TANK AND MEASURE IT HIGH PRECISION OIL TANK	3950K±3%
(3)	外观 APPEARANCE	目测 ISUAL INSPECTION	产品符合2.2的外形要求，无针孔、氧化、烫伤等 THE PRODUCT MEETS THE APPEARANCE REQUIREMENTS OF 2.2,WITHOUT PINHOLES,OXIDATION,BURNS,ETC
(4)	尺寸 DIMENSION	用精度不小于 0.01MM 的卡尺测量 MEASURE WITH CALIPER WITH AN ACCURACY OF 0.01MM	符合图 2.2 的外形尺寸 MEETS THE SHAPE REQUIREMENTS OF THE DRAWING 2.2
(5)	绝缘体测试 INSULATOR TEST	绝缘电压INSULATION VOLTAGE:500V _{DC} 时间TIME:1MIN	无外观损伤NO APPARENT DAMAGE 绝缘电阻INSULATION RESISTANCE: ≥150 MΩ

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)	跌落 ALL	IEC68-2-32	跌落高度 DROP HEIGHT: $1\pm0.1\text{m}$ 跌落次数 NUMBER OF DROPS: 1 跌落面 SURFACE: 水泥 CEMENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 1\%$ $ \Delta B/B \leq 2\%$
(2)	湿热负载 MOIST HEAT LOAD	IEC68-2-2/ IEC68-2-3 /CNS5550	温度 TEMPERATURE: $40\pm2^\circ\text{C}$; 湿度 HUMIDITY: 90 ~ 95%RH; 时间 TIME: $500\pm12\text{h}$; 工作电流 OPERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 1\%$ $ \Delta B/B \leq 2\%$
(3)	高温负载 HIGHT TEMPERATURE LOADS	IEC68-2-2/ CNS5550	温度 TEMPERATURE: $85\pm2^\circ\text{C}/105\pm2^\circ\text{C}$; 时间 TIME: $1000\pm24\text{h}$; 工作电流 OPERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 1\%$ $ \Delta B/B \leq 2\%$
(4)	冷热冲击 HOT AND COLD SHOCKS	IEC68-2-14	温度 TEMPERATURE: $-40^\circ\text{C}, +105^\circ$ 周期 PERIOD: 100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$
(5)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE: $-40\pm2^\circ\text{C}$; 时间 TIME: $1000\pm24\text{h}$;	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$
(6)	耐久性 ENDURANCE	UL1434	环境温度 ENVIRONMENTAL TEMPERATURE: $25\pm2^\circ\text{C}$; 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 PACKAGING MATERIAL & DIMENSION	产品数量 PART QUANTITY
(1)	包装袋 PACKING BAG	热封口袋 EAT SEALED POCKET,	
(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.

6、电阻 – 温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE

 $R_{25}=100K\Omega\pm5\%$
 $B_{25/50}=3950\pm3\%$

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	3149.3707	3694.2472	4322.5600	-1	319.1766	348.8068	380.2347
-39	2943.2277	3445.2184	4022.7455	0	303.4346	331.0851	360.3521
-38	2752.0859	3214.7927	3745.9058	1	288.5686	314.3756	341.6344
-37	2574.7503	3001.4524	3490.1227	2	274.5246	298.6146	324.0064
-36	2410.1290	2803.8137	3253.6507	3	261.2524	283.7425	307.3983
-35	2257.2236	2620.6140	3034.9005	4	248.7049	269.7040	291.7449
-34	2115.1204	2450.7003	2832.4236	5	236.8383	256.4474	276.9858
-33	1982.9833	2293.0191	2644.8997	6	225.6117	243.9246	263.0647
-32	1860.0457	2146.6073	2471.1236	7	214.9867	232.0907	249.9291
-31	1745.6055	2010.5837	2309.9955	8	204.9277	220.9038	237.5301
-30	1639.0183	1884.1419	2160.5101	9	195.4012	210.3247	225.8221
-29	1539.6927	1766.5429	2021.7489	10	186.3760	200.3170	214.7626
-28	1447.0858	1657.1096	1892.8712	11	177.8227	190.8464	204.3120
-27	1360.6986	1555.2209	1773.1078	12	169.7139	181.8811	194.4332
-26	1280.0722	1460.3071	1661.7543	13	162.0241	173.3912	185.0917
-25	1204.7846	1371.8447	1558.1648	14	154.7292	165.3487	176.2553
-24	1134.4473	1289.3531	1461.7474	15	147.8067	157.7276	167.8936
-23	1068.7025	1212.3904	1371.9588	16	141.2354	150.5034	159.9786
-22	1007.2205	1140.5501	1288.3003	17	134.9955	143.6531	152.4839
-21	949.6972	1073.4581	1210.3137	18	129.0685	137.1554	145.3847
-20	895.8522	1010.7700	1137.5781	19	123.4369	130.9901	138.6580
-19	845.4267	952.1684	1069.7061	20	118.0843	125.1383	132.2822
-18	798.1816	897.3608	1006.3416	21	112.9954	119.5824	126.2369
-17	753.8959	846.0774	947.1564	22	108.1557	114.3057	120.5034
-16	712.3656	798.0691	891.8484	23	103.5516	109.2927	115.0636
-15	673.4016	753.1062	840.1391	24	99.1704	104.5287	109.9010
-14	636.8292	710.9761	791.7717	25	95.0000	100.0000	105.0000
-13	602.4866	671.4827	746.5092	26	90.7891	95.6937	100.6112
-12	570.2239	634.4444	704.1330	27	86.7890	91.5977	96.4311
-11	539.9020	599.6933	664.4409	28	82.9881	87.7005	92.4488
-10	511.3922	567.0740	627.2464	29	79.3753	83.9914	88.6538
-9	484.5750	536.4424	592.3768	30	75.9404	80.4604	85.0362
-8	459.3393	507.6652	559.6725	31	72.6737	77.0978	81.5869
-7	435.5823	480.6187	528.9857	32	69.5659	73.8949	78.2970
-6	413.2082	455.1882	500.1797	33	66.6086	70.8431	75.1585
-5	392.1280	431.2674	473.1277	34	63.7935	67.9345	72.1634
-4	372.2591	408.7574	447.7122	35	61.1132	65.1616	69.3045
-3	353.5244	387.5665	423.8243	36	58.5605	62.5174	66.5749
-2	335.8525	367.6094	401.3631	37	56.1286	59.9952	63.9680

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	53.8111	57.5888	61.4777	72	14.6632	16.2982	18.0703
39	51.6021	55.2922	59.0981	73	14.1628	15.7580	17.4890
40	49.4960	53.0999	56.8238	74	13.6819	15.2383	16.9292
41	47.4874	51.0065	54.6495	75	13.2198	14.7383	16.3901
42	45.5713	49.0072	52.5704	76	12.7755	14.2571	15.8709
43	43.7429	47.0971	50.5817	77	12.3483	13.7940	15.3706
44	41.9978	45.2718	48.6791	78	11.9374	13.3482	14.8885
45	40.3318	43.5272	46.8584	79	11.5422	12.9190	14.4239
46	38.7408	41.8593	45.1157	80	11.1621	12.5057	13.9760
47	37.2212	40.2642	43.4471	81	10.7962	12.1076	13.5442
48	35.7693	38.7385	41.8493	82	10.4441	11.7240	13.1279
49	34.3818	37.2788	40.3187	83	10.1052	11.3545	12.7263
50	33.0555	35.8818	38.8524	84	9.7789	10.9984	12.3389
51	31.7875	34.5447	37.4471	85	9.4647	10.6551	11.9652
52	30.5747	33.2644	36.1002	86	9.1621	10.3242	11.6046
53	29.4147	32.0383	34.8088	87	8.8706	10.0051	11.2565
54	28.3047	30.8639	33.5704	88	8.5897	9.6974	10.9205
55	27.2424	29.7387	32.3826	89	8.3190	9.4006	10.5962
56	26.2256	28.6604	31.2431	90	8.0582	9.1143	10.2830
57	25.2520	27.6269	30.1495	91	7.8067	8.8380	9.9805
58	24.3195	26.6359	29.1000	92	7.5643	8.5714	9.6883
59	23.4264	25.6857	28.0924	93	7.3305	8.3141	9.4061
60	22.5706	24.7742	27.1249	94	7.1050	8.0657	9.1334
61	21.7505	23.8998	26.1958	95	6.8875	7.8258	8.8698
62	20.9644	23.0607	25.3032	96	6.6776	7.5942	8.6151
63	20.2107	22.2554	24.4456	97	6.4751	7.3705	8.3688
64	19.4879	21.4823	23.6215	98	6.2797	7.1545	8.1307
65	18.7947	20.7399	22.8293	99	6.0911	6.9457	7.9005
66	18.1296	20.0270	22.0677	100	5.9089	6.7440	7.6779
67	17.4914	19.3422	21.3354	101	5.7331	6.5491	7.4625
68	16.8789	18.6842	20.6310	102	5.5633	6.3606	7.2541
69	16.2908	18.0520	19.9534	103	5.3992	6.1785	7.0525
70	15.7263	17.4442	19.3015	104	5.2408	6.0024	6.8574
71	15.1840	16.8600	18.6742	105	5.0877	5.8321	6.6686