

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	SNS103B ₁ 3950FE1AX050E
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		



修订履历

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1、规格型号 PART IDENTIFICATION

SN	C	103	B1	3950	F	E	I	AX	050	E
①	②	③	④	④	⑥	⑦	⑧	⑨	⑩	⑪

① 产品别 PART NUMBER ENTIFICATION	SN 指敏感型负温度系数热敏电阻;
	SN INDICATES SMD NTC THERMISTOR
② 系列别 DIMENSION (L×W×T) (MM)	S指传感器;
	S-FINGER SENSOR
③ 产品阻值 (25°C零功率电阻值) PRODUCTION RESISTANCE (ZERO POWER RESISTANCE AT 25°C)	103指10KΩ
	103 MEANS 10 KΩ
④ B 值代码 B-VALUE CODE	B1 指 25/50
	B1 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	F 指±1%
	F INDICATES ±1%
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	AX指UL3266 HF#30单线;
	AX MEANS UL3266 HF#30 SINGLE WIRE
⑩ 线材长度Wire length WIRE LENGTH	050指产品总长度为50mm;
	050 REFERS TO THE TOTAL LENGTH OF THE PRODUCT IS 50MM

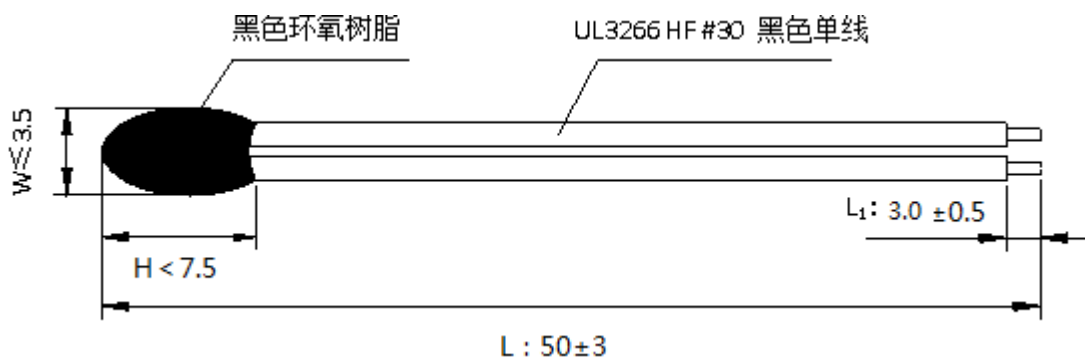
⑪ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保。
	E IS FOR ENVIRONMENTAL PROTECTION.

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 (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	10K	3950	≥ 2.5	≤ 10	150	-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 50°C HIGH-PRECISION OIL TANK AND MEASURE IT	10KΩ±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 IMMERSE SAMPLES IN A 25°C,50°C HIGH-PRECISION OIL TANK AND MEASURE IT HIGH PRECISION OIL TANK	3950K±1%	II	1.0
(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	II	0.65
(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	II	1.0
(5)	绝缘体测试 INSULATOR TEST	绝缘电压INSULATION VOLTAGE:500VDC 时间TIME:1000±24 h	无外观损伤NO APPARENT DAMAGE 绝缘电阻INSULATION RESISTANCE: ≥150 MΩ	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)	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 HIGH 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	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: $40\pm2^\circ\text{C}$; 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: $125\pm2^\circ\text{C}$; 时间: $1000\pm24\text{h}$;	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, W×H = 110mm×130mm	
(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、样品检验报告SAMPLE INSPECTIONG REPORT

检验日期 DATE OF INSPECTION			环境温度 AMBIENT TEMPERATURE		样品数量 NUMBER OF SAMPLES	
规格型号 SPECIFICATIONS AND MODELS			环境湿度 AMBIENT HUMIDITY		抽样数量 NUMBER OF SAMPLES	
电性能 ELECTRICAL PROPERTIES			尺寸SIZE (单位UNIT: mm)			
编号 UNMBERING	R25(KΩ)	B25/85(K)	W	H	L	L1
(1)						
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
(10)						
判定						
外观 APPEARANCE						
绝缘电阻测试 INSULATION RESISTANCE TEST						
综合判定 COMPREHENSIVE JUDGMENT						

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

R25=10KΩ±1%

B25/50=3950±1%

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	352.7653	369.4247	386.8322	-1	34.1031	34.8807	35.6724
-39	329.2151	344.5218	360.5042	0	32.3873	33.1085	33.8423
-38	307.4090	321.4793	336.1599	1	30.7687	31.4376	32.1177
-37	287.2059	300.1452	313.6362	2	29.2412	29.8615	30.4918
-36	268.4769	280.3814	292.7845	3	27.7991	28.3742	28.9584
-35	251.1043	262.0614	273.4692	4	26.4371	26.9704	27.5117
-34	234.9809	245.0700	255.5668	5	25.1503	25.6447	26.1463
-33	220.0082	229.3019	238.9644	6	23.9342	24.3925	24.8570
-32	206.0963	214.6607	223.5587	7	22.7843	23.2091	23.6394
-31	193.1631	201.0584	209.2554	8	21.6968	22.0904	22.4888
-30	181.1330	188.4142	195.9684	9	20.6679	21.0325	21.4013
-29	169.9371	176.6543	183.6187	10	19.6941	20.0317	20.3731
-28	159.5118	165.7110	172.1338	11	18.7721	19.0846	19.4005
-27	149.7992	155.5221	161.4475	12	17.8988	18.1881	18.4802
-26	140.7456	146.0307	151.4991	13	17.0715	17.3391	17.6092
-25	132.3022	137.1845	142.2327	14	16.2874	16.5349	16.7844
-24	124.4238	128.9353	133.5971	15	15.5440	15.7728	16.0032
-23	117.0688	121.2390	125.5453	16	14.8390	15.0503	15.2631
-22	110.1992	114.0550	118.0339	17	14.1702	14.3653	14.5616
-21	103.7797	107.3458	111.0234	18	13.5356	13.7155	13.8965
-20	97.7780	101.0770	104.4769	19	12.9331	13.0990	13.2658
-19	92.1641	95.2168	98.3609	20	12.3609	12.5138	12.6673
-18	86.9106	89.7361	92.6442	21	11.8175	11.9582	12.0994
-17	81.9919	84.6077	87.2983	22	11.3011	11.4306	11.5603
-16	77.3847	79.8069	82.2967	23	10.8104	10.9293	11.0484
-15	73.0673	75.3106	77.6151	24	10.3438	10.4529	10.5621
-14	69.0195	71.0976	73.2310	25	9.9000	10.0000	10.1000
-13	65.2228	67.1483	69.1236	26	9.4695	9.5694	9.6693
-12	61.6602	63.4444	65.2738	27	9.0602	9.1598	9.2595
-11	58.3156	59.9693	61.6637	28	8.6710	8.7700	8.8694
-10	55.1745	56.7074	58.2770	29	8.3007	8.3991	8.4979
-9	52.2231	53.6442	55.0985	30	7.9483	8.0460	8.1442
-8	49.4489	50.7665	52.1140	31	7.6129	7.7098	7.8072
-7	46.8401	48.0619	49.3106	32	7.2935	7.3895	7.4860
-6	44.3858	45.5188	46.6761	33	6.9893	7.0843	7.1799
-5	42.0760	43.1267	44.1993	34	6.6996	6.7934	6.8880
-4	39.9012	40.8757	41.8699	35	6.4234	6.5162	6.6096
-3	37.8528	38.7566	39.6781	36	6.1602	6.2517	6.3440
-2	35.9226	36.7609	37.6151	37	5.9093	5.9995	6.0906

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
38	5.6699	5.7589	5.8487	82	1.1361	1.1724	1.2098
39	5.4416	5.5292	5.6177	83	1.0999	1.1354	1.1720
40	5.2237	5.3100	5.3971	84	1.0651	1.0998	1.1356

41	5.0158	5.1007	5.1865	85	1.0315	1.0655	1.1005
42	4.8172	4.9007	4.9852	86	0.9991	1.0324	1.0667
43	4.6276	4.7097	4.7928	87	0.9680	1.0005	1.0340
44	4.4465	4.5272	4.6088	88	0.9379	0.9697	1.0026
45	4.2735	4.3527	4.4330	89	0.9089	0.9401	0.9722
46	4.1081	4.1859	4.2648	90	0.8810	0.9114	0.9429
47	3.9501	4.0264	4.1039	91	0.8540	0.8838	0.9146
48	3.7989	3.8739	3.9499	92	0.8280	0.8571	0.8872
49	3.6544	3.7279	3.8025	93	0.8029	0.8314	0.8609
50	3.5161	3.5882	3.6614	94	0.7786	0.8066	0.8354
51	3.3838	3.4545	3.5263	95	0.7553	0.7826	0.8108
52	3.2571	3.3264	3.3969	96	0.7327	0.7594	0.7870
53	3.1359	3.2038	3.2729	97	0.7109	0.7371	0.7641
54	3.0198	3.0864	3.1541	98	0.6899	0.7154	0.7419
55	2.9086	2.9739	3.0403	99	0.6695	0.6946	0.7205
56	2.8021	2.8660	2.9311	100	0.6499	0.6744	0.6998
57	2.7001	2.7627	2.8264	101	0.6309	0.6549	0.6797
58	2.6023	2.6636	2.7261	102	0.6126	0.6361	0.6604
59	2.5085	2.5686	2.6298	103	0.5949	0.6178	0.6416
60	2.4187	2.4774	2.5374	104	0.5778	0.6002	0.6235
61	2.3325	2.3900	2.4487	105	0.5612	0.5832	0.6060
62	2.2498	2.3061	2.3636	106	0.5452	0.5667	0.5891
63	2.1704	2.2255	2.2818	107	0.5297	0.5508	0.5727
64	2.0943	2.1482	2.2033	108	0.5147	0.5354	0.5568
65	2.0212	2.0740	2.1279	109	0.5003	0.5205	0.5414
66	1.9510	2.0027	2.0555	110	0.4862	0.5060	0.5266
67	1.8837	1.9342	1.9859	111	0.4727	0.4921	0.5122
68	1.8190	1.8684	1.9190	112	0.4596	0.4785	0.4982
69	1.7568	1.8052	1.8547	113	0.4469	0.4655	0.4847
70	1.6971	1.7444	1.7929	114	0.4346	0.4528	0.4717
71	1.6397	1.6860	1.7334	115	0.4227	0.4405	0.4590
72	1.5845	1.6298	1.6763	116	0.4112	0.4286	0.4467
73	1.5315	1.5758	1.6212	117	0.4000	0.4171	0.4349
74	1.4805	1.5238	1.5683	118	0.3892	0.4059	0.4233
75	1.4314	1.4738	1.5173	119	0.3787	0.3951	0.4122
76	1.3842	1.4257	1.4683	120	0.3686	0.3846	0.4013
77	1.3388	1.3794	1.4211	121	0.3588	0.3745	0.3909
78	1.2951	1.3348	1.3756	122	0.3492	0.3646	0.3807
79	1.2531	1.2919	1.3318	123	0.3400	0.3551	0.3708
80	1.2126	1.2506	1.2896	124	0.3311	0.3458	0.3612
81	1.1736	1.2108	1.2490	125	0.3224	0.3369	0.3520