

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	SNS103B13950FE1L020ERW25
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 S 103 B₁ 3950 F E I L 020 E RW 25
 ① ② ③ ④ ④ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

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	S指传感器
	S-FINGER SENSOR
③ 产品阻值 PRODUCT RESISTANCE	103指10KΩ;
	103 MEANS 10KΩ;
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	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 SPECIFICATION	L指UL3302 HF#30单线;
	L MEANS UL3302 HF#30 SINGLE WIRE;

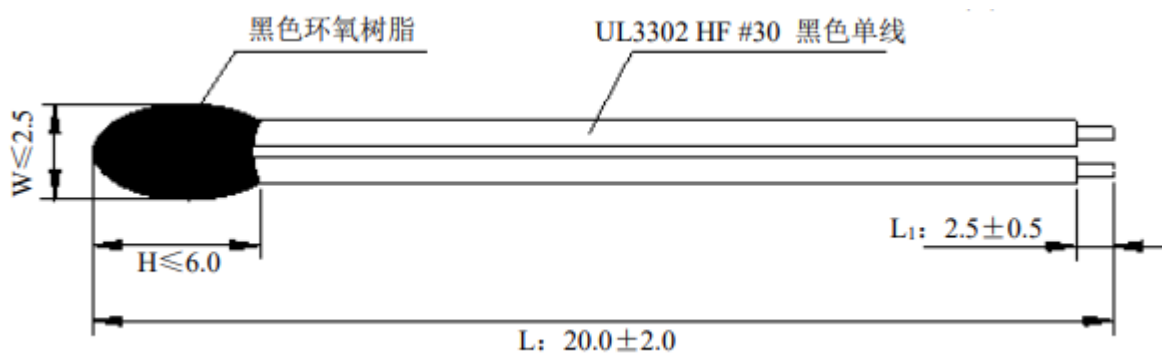
⑩ 线材长度 WIRE LENGTH	385指产品总长度为385mm;
	385 REFERS TO THE TOTAL LENGTH OF THE PRODUCT IS 385MM
⑪ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保
	E IS FOR ENVIRONMENTAL PROTECTION
⑫ 特殊定义 SPECIAL DEFINITION	RW指产品头部尺寸宽度 $W \leq 2.5\text{mm}$, 深度 $H \leq 6.0\text{mm}$;
	RW REFERS TO THE PRODUCT HEAD SIZE WIDTH $W \leq 2.5\text{MM}$, DEPTH $H \leq 6.0\text{MM}$;
⑬ 线尾剥线长度 STRIP LENGTH OF WIRE TAIL	25指产品线尾剥线长度2.5mm。
	25 REFERS TO THE TAIL STRIP LENGTH OF THE PRODUCT LINE 2.5MM.

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)
SNS103B13950FE1L020ERW25	10K	3950	≥ 2.5	≤ 15	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	10KΩ±1%
(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±1%
(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 PERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \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 PERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \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 2\%$ $ \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 QUANTITY OF PRODUCT
(1)	包装袋 PACKING BAG	热封口袋 HEAT SEALED POCKET	1000PCS
(2)	内包装盒 INNER PACKING 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

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

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	309.8854	324.0953	338.9228	-1	32.7202	33.4522	34.1972
-39	289.9330	303.0241	316.6747	0	31.1327	31.8133	32.5054
-38	271.4112	283.4769	296.0494	1	29.6745	30.3084	30.9529
-37	254.2075	265.3329	276.9175	2	28.2900	28.8804	29.4803
-36	238.2192	248.4817	259.1605	3	26.9753	27.5251	28.0832
-35	223.3520	232.8225	242.6703	4	25.7265	26.2383	26.7575
-34	209.5198	218.2628	227.3478	5	24.5402	25.0164	25.4993
-33	196.6434	204.7179	213.1026	6	23.4129	23.8559	24.3049
-32	184.6504	192.1103	199.8515	7	22.3415	22.7534	23.1707
-31	173.4742	180.3688	187.5186	8	21.3229	21.7059	22.0935
-30	163.0538	169.4281	176.0341	9	20.3545	20.7103	21.0703
-29	153.3329	159.2283	165.3339	10	19.4335	19.7640	20.0981
-28	144.2599	149.7142	155.3592	11	18.5574	18.8642	19.1742
-27	135.7875	140.8353	146.0562	12	17.7239	18.0086	18.2960
-26	127.8718	132.5449	137.3751	13	16.9308	17.1948	17.4611
-25	120.4726	124.8002	129.2703	14	16.1759	16.4205	16.6672
-24	113.5529	117.5616	121.6997	15	15.4573	15.6838	15.9121
-23	107.0784	110.7929	114.6247	16	14.7730	14.9827	15.1938
-22	101.0176	104.4603	108.0096	17	14.1214	14.3153	14.5104
-21	95.3414	98.5331	101.8215	18	13.5007	13.6799	13.8600
-20	90.0229	92.9827	96.0301	19	12.9094	13.0748	13.2410
-19	85.0618	87.8081	90.6340	20	12.3459	12.4985	12.6517
-18	80.4066	82.9554	85.5765	21	11.8090	11.9495	12.0905
-17	76.0366	78.4027	80.8343	22	11.2971	11.4264	11.5561
-16	71.9326	74.1294	76.3857	23	10.8091	10.9280	11.0471
-15	68.0768	70.1168	72.2107	24	10.3438	10.4529	10.5621
-14	64.4525	66.3473	68.2909	25	9.9000	10.0000	10.1000
-13	61.0446	62.8047	64.6090	26	9.4695	9.5694	9.6693
-12	57.8387	59.4739	61.1492	27	9.0602	9.1598	9.2595
-11	54.8216	56.3410	57.8968	28	8.6709	8.7700	8.8693
-10	51.9811	53.3931	54.8380	29	8.3006	8.3991	8.4979
-9	49.3058	50.6181	51.9601	30	7.9482	8.0460	8.1441
-8	46.7850	48.0048	49.2514	31	7.6129	7.7098	7.8072
-7	44.4090	45.5428	46.7009	32	7.2935	7.3895	7.4860
-6	42.1685	43.2226	44.2985	33	6.9893	7.0843	7.1798
-5	40.0551	41.0349	42.0346	34	6.6995	6.7934	6.8879
-4	38.0607	38.9716	39.9004	35	6.4235	6.5162	6.6096
-3	36.1779	37.0248	37.8878	36	6.1602	6.2517	6.3439
-2	34.3999	35.1873	35.9891	37	5.9092	5.9995	6.0905

T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(°C)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
38	5.6699	5.7589	5.8487	72	1.5845	1.6298	1.6763
39	5.4416	5.5292	5.6177	73	1.5315	1.5758	1.6212
40	5.2237	5.3100	5.3971	74	1.4805	1.5238	1.5683
41	5.0158	5.1007	5.1865	75	1.4314	1.4738	1.5173
42	4.8172	4.9007	4.9852	76	1.3842	1.4257	1.4683
43	4.6276	4.7097	4.7928	77	1.3388	1.3794	1.4211
44	4.4465	4.5272	4.6088	78	1.2951	1.3348	1.3756
45	4.2735	4.3527	4.4330	79	1.2531	1.2919	1.3318
46	4.1081	4.1859	4.2648	80	1.2126	1.2506	1.2896
47	3.9501	4.0264	4.1039	81	1.1736	1.2108	1.2490
48	3.7989	3.8739	3.9499	82	1.1361	1.1724	1.2098
49	3.6544	3.7279	3.8025	83	1.0999	1.1354	1.1720
50	3.5161	3.5882	3.6614	84	1.0651	1.0998	1.1356
51	3.3838	3.4545	3.5263	85	1.0315	1.0655	1.1005
52	3.2571	3.3264	3.3969	86	0.9991	1.0324	1.0667
53	3.1359	3.2038	3.2729	87	0.9680	1.0005	1.0340
54	3.0198	3.0864	3.1541	88	0.9379	0.9697	1.0026
55	2.9086	2.9739	3.0403	89	0.9089	0.9401	0.9722
56	2.8021	2.8660	2.9311	90	0.8810	0.9114	0.9429
57	2.7001	2.7627	2.8264	91	0.8540	0.8838	0.9146
58	2.6023	2.6636	2.7261	92	0.8280	0.8571	0.8872
59	2.5085	2.5686	2.6298	93	0.8029	0.8314	0.8609
60	2.4187	2.4774	2.5374	94	0.7786	0.8066	0.8354
61	2.3325	2.3900	2.4487	95	0.7553	0.7826	0.8108
62	2.2498	2.3061	2.3636	96	0.7327	0.7594	0.7870
63	2.1704	2.2255	2.2818	97	0.7109	0.7371	0.7641
64	2.0943	2.1482	2.2033	98	0.6899	0.7154	0.7419
65	2.0212	2.0740	2.1279	99	0.6695	0.6946	0.7205
66	1.9510	2.0027	2.0555	100	0.6499	0.6744	0.6998
67	1.8837	1.9342	1.9859	101	0.6309	0.6549	0.6797
68	1.8190	1.8684	1.9190	102	0.6126	0.6361	0.6604
69	1.7568	1.8052	1.8547	103	0.5949	0.6178	0.6416
70	1.6971	1.7444	1.7929	104	0.5778	0.6002	0.6235
71	1.6397	1.6860	1.7334	105	0.5612	0.5832	0.6060