

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	SNS103B13380FE1Q032SERR30
承认书版本号 APPROVAL SHEET VERSION	4.1
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

[illegible]

目 录

CONTENTS

1、规格型号 PART IDENTIFICATION	1
2、产品特性 PRODUCTION FEATURES	3
2.1 技术参数 TECHNICAL PARAMETER	3
2.2 外形尺寸、材质 PRODUCTION DIMENSION、MATERIAL	3
3、检验规则 INSPECTION REGULATIONS	4
3.1 出厂检验 DELIVERY INSPECTION	4
3.2 型式检验 PATTERN INSPECTION	5
4、包装、贮存 PACKAGE & STORAGE	6
4.1 包装 PACKAGE	6
4.2 贮存 STORAGE	6
5、电阻-温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE	7

1、规格型号 PART IDENTIFICATION

SN S 104 B₁ 3950 F E I CK 058 E TN 20
 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 (25°零功率电阻值) PRODUCT RESISTANCE (25° ZERO POWER RESISTANCE)	103指10KΩ
	103 MEANS 10KΩ;
④ B 值代码 B-VALUE CODE	B1指 25/50
	B1 MEANS 25/50
⑤ B 值数值 B-VALUE TOLERANCE	3380指B值为3380K
	3380 MEANS THAT B VALUE IS 3380K
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 MEANS 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	Q指UL3302 HF#28单线;
	Q REFERS TO UL3302 HF#28 SINGLE LINE;
⑩ 线材长度	032指产品总长度为32mm;

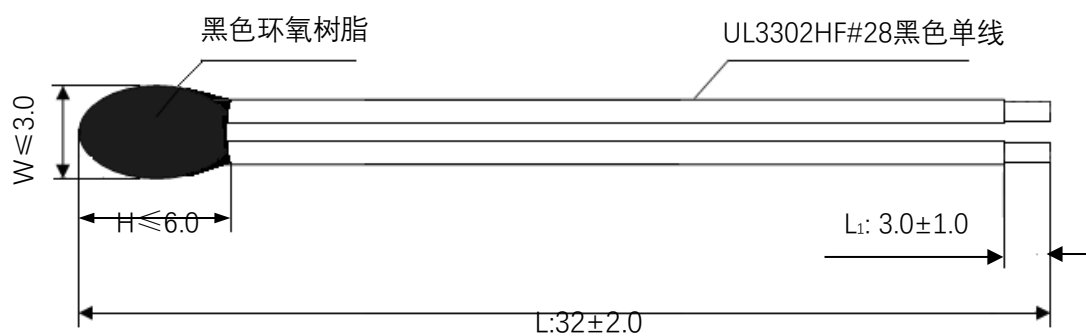
WIRE LENGTH	032 MEANS THE TOTAL LENGTH OF THE PRODUCT IS 32MM;
⑪ 双85实验 DOUBLE 85 EXPERIMENT	S指双85实验;
	S-FINGER DOUBLE 85 EXPERIMENT;
⑫ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保;
	E IS FOR ENVIRONMENTAL PROTECTION
⑬ 特殊定义 SPECIAL DEFINITION	RR表示头部尺寸宽度 $W \leq 3.0\text{mm}$, 深度 $H \leq 6.0\text{mm}$;
	RR INDICATES THAT THE HEAD SIZE WIDTH $W \leq 3.0\text{MM}$, DEPTH $H \leq 6.0\text{MM}$;
⑭ 线尾剥线长度 STRIP LENGTH OF WIRE TAIL	30指产品线尾剥线长度为3.0mm。
	THE TAIL STRIP LENGTH OF THE 30-FINGER PRODUCT LINE IS 3.0MM.

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)
SNS103B13380FE1Q032SERR30	10K	3380	≥ 2.5	≤ 10	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°C HIGH PRECISION OIL TANK FOR STABILITY	$10K\Omega \pm 1\%$
(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 HIGH PRECISION OIL TANK AT 25°C AND 85AND THEN MEASURED	$3380K \pm 1\%$
(3)	外观 APPEARANCE	目测检查 VISUAL 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	用精度为0.01mm卡尺测量 MEASURE WITH A CALIPER ACCURACY OF 0.01MM	符合2.2的外形尺寸 CONFORM TO THE DIMENSIONS OF 2.2
(5)	绝缘电阻测试 INSULATION RESISTANCE TEST	绝缘电压INSULATION VOLTAGE: 300V _{DC} 时间TIME: 1min	无外观损伤 NO APPARENT DAMAGE 绝缘电阻 INSULATION RESISTANCE: $\geq 150 M\Omega$

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)	跌落 FALL	IEC68-2-32	跌落高度 DROP HEIGHE: 1±0.1m 跌落次数 NUMBER OF DROPS: 1 跌落面 FALLING 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±2°C 湿度 HUMIDITY: 90~95%RH 时间 TIME: 500±12h; 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)	高温存储 HIGHT TEMPERATURE LOADS	IEC68-2-2/CNS5550	温度 TEMPERATURE: 105±2°C 时间 TIME: 1000±24h	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 COLD AND HEAT SHOCK	IEC68-2-14	温度 TEMPERATURE: -40°C, +150°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 TEMPERATURE: -40±2°C 时间 TIME: 1000±24h	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 2\%$ $ \Delta B/B \leq 2\%$
(6)	耐久性 DURABILITY	UL1434	环境温度 ENVIRONMENT TEMPERATURE: 25±2°C 周期 PERIOD: 6000	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 5\%$ $ \Delta B/B \leq 2\%$
(7)	双85 DOUBLE 85 EXPERIMENT		温度 TEMPERATURE: 85±2°C 湿度 HUMIDITY: 85±5%RH 时间 TIME: 168±2h	无外观损伤 NO COSMETIC DAMAGE $ \Delta R_{25}/R_{25} \leq 3\%$ $ \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 SEAL POCKET	1000PCS
(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，存放产品的仓库环境温度-10℃~+40℃、相遇湿度不大于70%，仓库内不允许有各、易爆的种有害气体、易爆的产品及有腐蚀腐蚀性的化学物品，并且无强烈的机械震动、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

 $R_{25}=10K\Omega\pm1\%$
 $B25/85=3380K\pm1\%$

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
-40	208.1261	216.7963	225.8051	-1	28.4621	29.0579	29.6632
-39	196.2500	204.3042	212.6676	0	27.2361	27.7938	28.3602
-38	185.1388	192.6235	200.3908	1	26.0706	26.5928	27.1227
-37	174.7380	181.6961	188.9124	2	24.9623	25.4511	25.9469
-36	164.9974	171.4682	178.1750	3	23.9082	24.3657	24.8295
-35	155.8704	161.8903	168.1258	4	22.9051	23.3333	23.7672
-34	147.3143	152.9165	158.7158	5	21.9503	22.3511	22.7569
-33	139.2895	144.5047	149.9002	6	21.0412	21.4163	21.7958
-32	131.7594	136.6160	141.6374	7	20.1755	20.5263	20.8812
-31	124.6902	129.2142	133.8890	8	19.3506	19.6788	20.0106
-30	118.0506	122.2661	126.6195	9	18.5646	18.8715	19.1817
-29	111.8116	115.7409	119.7962	10	17.8152	18.1023	18.3921
-28	105.9464	109.6099	113.3886	11	17.1007	17.3691	17.6399
-27	100.4301	103.8467	107.3688	12	16.4192	16.6700	16.9229
-26	95.2397	98.4269	101.7107	13	15.7689	16.0033	16.2395
-25	90.3537	93.3278	96.3901	14	15.1483	15.3672	15.5877
-24	85.7524	88.5283	91.3848	15	14.5559	14.7602	14.9660
-23	81.4172	84.0087	86.6740	16	13.9901	14.1809	14.3728
-22	77.3311	79.7511	82.2385	17	13.4497	13.6277	13.8066
-21	73.4782	75.7384	78.0604	18	12.9334	13.0994	13.2661
-20	69.8435	71.9551	74.1231	19	12.4400	12.5947	12.7500
-19	66.4135	68.3866	70.4112	20	11.9683	12.1124	12.2570
-18	63.1751	65.0192	66.9103	21	11.5172	11.6514	11.7859
-17	60.1166	61.8404	63.6072	22	11.0858	11.2106	11.3356
-16	57.2268	58.8384	60.4893	23	10.6731	10.7891	10.9052
-15	54.4952	56.0023	57.5452	24	10.2781	10.3858	10.4937
-14	51.9124	53.3218	54.7640	25	9.9000	10.0000	10.1000
-13	49.4691	50.7874	52.1357	26	9.5308	9.6307	9.7307
-12	47.1570	48.3903	49.6510	27	9.1775	9.2772	9.3770
-11	44.9683	46.1222	47.3010	28	8.8394	8.9387	9.0382
-10	42.8956	43.9753	45.0778	29	8.5156	8.6144	8.7136
-9	40.9320	41.9425	42.9736	30	8.2055	8.3038	8.4024
-8	39.0711	40.0168	40.9814	31	7.9084	8.0061	8.1042
-7	37.3069	38.1921	39.0944	32	7.6238	7.7208	7.8182
-6	35.6338	36.4624	37.3066	33	7.3510	7.4472	7.5439
-5	34.0466	34.8223	35.6120	34	7.0895	7.1849	7.2807
-4	32.5403	33.2664	34.0054	35	6.8388	6.9332	7.0283
-3	31.1102	31.7900	32.4814	36	6.5983	6.6918	6.7859
-2	29.7522	30.3886	31.0355	37	6.3676	6.4601	6.5533

T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)	T(°C)	R _{Min} (KΩ)	R _{Nor} (KΩ)	R _{Max} (KΩ)
38	6.1463	6.2377	6.3299	72	2.0611	2.1145	2.1691
39	5.9339	6.0242	6.1154	73	2.0017	2.0542	2.1078
40	5.7299	5.8192	5.9093	74	1.9443	1.9959	2.0486

41	5.5341	5.6223	5.7113	75	1.8889	1.9395	1.9913
42	5.3460	5.4331	5.5210	76	1.8353	1.8850	1.9359
43	5.1654	5.2513	5.3381	77	1.7834	1.8323	1.8823
44	4.9918	5.0766	5.1622	78	1.7333	1.7813	1.8304
45	4.8250	4.9086	4.9931	79	1.6849	1.7320	1.7803
46	4.6647	4.7471	4.8304	80	1.6380	1.6843	1.7317
47	4.5105	4.5917	4.6739	81	1.5927	1.6381	1.6847
48	4.3623	4.4423	4.5233	82	1.5488	1.5934	1.6392
49	4.2197	4.2985	4.3783	83	1.5063	1.5502	1.5951
50	4.0826	4.1601	4.2388	84	1.4652	1.5083	1.5525
51	3.9506	4.0270	4.1044	85	1.4255	1.4677	1.5111
52	3.8236	3.8987	3.9750	86	1.3869	1.4285	1.4711
53	3.7013	3.7753	3.8504	87	1.3496	1.3904	1.4323
54	3.5836	3.6564	3.7303	88	1.3135	1.3536	1.3948
55	3.4702	3.5418	3.6146	89	1.2785	1.3179	1.3583
56	3.3610	3.4315	3.5031	90	1.2447	1.2833	1.3230
57	3.2558	3.3251	3.3956	91	1.2118	1.2498	1.2888
58	3.1545	3.2226	3.2919	92	1.1800	1.2173	1.2556
59	3.0568	3.1238	3.1919	93	1.1492	1.1858	1.2235
60	2.9626	3.0285	3.0955	94	1.1193	1.1553	1.1923
61	2.8718	2.9366	3.0025	95	1.0903	1.1256	1.1620
62	2.7843	2.8480	2.9128	96	1.0622	1.0969	1.1326
63	2.6999	2.7624	2.8262	97	1.0350	1.0691	1.1042
64	2.6184	2.6799	2.7426	98	1.0085	1.0420	1.0765
65	2.5398	2.6003	2.6619	99	0.9829	1.0158	1.0497
66	2.4640	2.5234	2.5840	100	0.9581	0.9904	1.0237
67	2.3908	2.4492	2.5087	101	0.9339	0.9657	0.9984
68	2.3202	2.3775	2.4361	102	0.9105	0.9417	0.9739
69	2.2520	2.3083	2.3658	103	0.8878	0.9184	0.9500
70	2.1861	2.2415	2.2980	104	0.8658	0.8959	0.9269
71	2.1225	2.1769	2.2324	105	0.8443	0.8739	0.9044