



南京时恒电子科技有限公司

Nanjing Shiheng Electronics Co.,Ltd.

规格承认书

APPROVAL SHEET

客户名称 CUSTOMER :

产品名称 PART NAME :

产品规格 PART NUMBER :

产品编号 PRODUCTCODE:

版次 REV.NO:

日期 DATE:

MF58 玻壳型 NTC 热敏电阻器
MF58 Glass shell NTC Thermistor

MF58- 103J3435 UL:E240991

B0

2022-8-24

确认

CONFIRM

客户 CLIENT		供货商/制造商 MANUFACTOR	
品保部 Quality Dep.		规格书制作 Design	吴迎丽
制造部 Production Dep.		业务部审核 Checked by sales	
工程部 Engineering Dep.		技术部审核 Checked by R&D	程鹏
		品质部审核 Checked by QA	李少媛

南京时恒电子科技有限公司

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1、产品型号说明 Product model specification

MF58 **103** **J** **3435**

① ② ③ ④

- ① MF58: 玻壳型 NTC 热敏电阻器系列 (Series Glass shell NTC Thermistor)
- ② 103: 25℃的零功率电阻值 10KΩ(Zero Power Resistance at 25℃is 10KΩ)
- ③ J: 阻值精度代码 F-±1% G-±2% H-±3% J-±5% (Resistance precision code F-±1% G-±2% H-±3% J-±5%)
- ④ 3435: B25/85 值 3435K (B25/85:3435K)

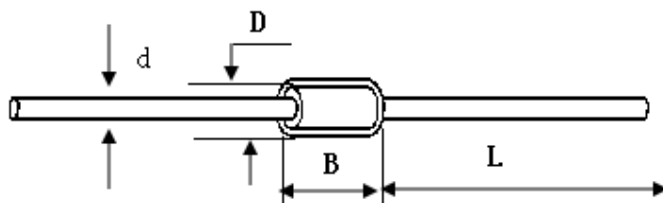
2、电气性能 Electrical Characteristics

No.	项目 Item	符号 Symbol	测试条件 Test conditions	单位 Unit	性能要求 Requirements
2.1	25℃的零功率电阻值 Zero Power Resistance at 25℃	R _{25℃}	T _a =25±0.01℃ Test Power≤0.1mW	KΩ	10KΩ±5%
2.2	B 值 B-value	B _{25/85}	$B=[(T_a \times T_b)/(T_b - T_a)] \times \ln(R_a/R_b)$ T _a =25±0.01℃ T _b =85℃±0.01℃	K	3435±1%
2.3	耗散系数 Thermal dissipation Coefficient	δ	静止空气中 In still air	mW/ ℃	≥ 2
2.4	时间常数 Thermal time constant	τ	静止空气中 In still air	sec	≤ 20
2.5	耐电压 withstand voltage	/	1500V/AC 1min	/	无击穿或飞弧 No breakthrough and flash over
2.6	绝缘电阻 Insulation resistance	/	500V/DC 1min	MΩ	≥500
2.7	工作温度范围 Operating temperature range	/	/	℃	-40℃ ~ 250℃
2.8	最大额定功率 Maximum rated power	P _{max}	/	mW	50
2.9	阻温特性 R&T-table	/	/	/	见附表 I See attached table I
2.10	阻值误差&B 值误差 Resistance tolerance& B-value tolerance	/	/	/	见附表 II See attached table II

3、产品图纸 Product drawing

产品图纸 Product drawing	客户确认 Customer confirm	客户名称 Customer:			
		确认 Confirm		日期 DATE	
产品型号 MODEL NO.	MF58-103J3435	审核 Approve:		日期 DATE	

尺寸 Dimensions: (Unit: mm)



$D \pm 0.2$	B_{max}	L_{min}	$d \pm 0.05$
1.8	4.0	27	0.5

技术要求 Technical requirements:

- 1) 零功率阻值: R25: $10K\Omega \pm 5\%$ (Zero Power Resistance: R25: $10K\Omega \pm 5\%$);
- 2) B25/85 数值: $3435K \pm 1\%$ (B-value: B25/85: $3435K \pm 1\%$);
- 3) 引线: $\phi 0.5$ 镀锡铜包钢线 ($\Phi 0.5$ tinned copper-weld steel wire);
- 4) 封装: 玻壳封装 (Glass shell package);
- 5) 符合 RoHS 环保要求 (Meet environmental protection requirements: RoHS)。

更新履历 Revised record sheet

版本 REV. NO	更新时间 REV. DATE	更新内容 Change content	申请人 Applicant	批准人 Approved
A0	2015/10/11	版本制定。 Version formulation	吴仪	李少媛
B0	2022/4/1	更新规格书版本格式, 增加版次管控 Update for version form of datasheet, add to management and control for number of edition	吴仪	李少媛

4、可靠性 Reliability

No.	项目 Item	试验标准	试验条件及方法 Test conditions and methods	性能要求 Requirements
4.1	引出端强度 Terminal strength	IEC60068-2-21	固定电阻端, 拉力: 10 ± 1 N, 时间: 10 ± 1 秒 Fixed resistor end, Pull strength: 10 ± 1 N, time: 10 ± 1 sec	无可见性损伤 No obvious damage $R_{25} \Delta R/R \leq \pm 2\%$
4.2	可焊性 Solderability	IEC60068-2-20	温度 $245 \pm 5^\circ\text{C}$ 时间 2-3 秒 temperature : $245 \pm 5^\circ\text{C}$ for 2-3sec	着锡面积 $\geq 95\%$ Coverage area $\geq 95\%$.
4.3	耐焊接热 Withstand weiling temp	IEC60068-2-20	锡锅温度: $260 \pm 5^\circ\text{C}$, 浸入深度距电阻体 6mm, 时间 5 ± 1 秒 Temperature of tin pot: $260 \pm 5^\circ\text{C}$, insert depth from body of resistance 6mm, time 5 ± 1 seconds	$R_{25} \Delta R/R \leq \pm 2\%$
4.4	稳态湿热 Steady humidity and heat	IEC60068-2-78	温度: $40^\circ\text{C} \pm 2^\circ\text{C}$, 湿度: $93 \pm 2\%$, 时间: 500 小时 Temp: $40^\circ\text{C} \pm 2^\circ\text{C}$, humidity: $93 \pm 2\%$, Time : 500hrs	$R_{25} \Delta R/R \leq \pm 2\%$
4.5	温度快速变化 Rapid changes in temperature	IEC60068-2-14	-40°C 30min \rightarrow 25°C 5min \rightarrow 250°C 30min \rightarrow 25°C 5min, 5cycles	$R_{25} \Delta R/R \leq \pm 2\%$
4.6	高温储存 High temperature storage	IEC60068-2-2	温度: $250^\circ\text{C} \pm 5^\circ\text{C}$ 时间: 1000 小时 Temp : $250^\circ\text{C} \pm 5^\circ\text{C}$, Time : 1000hrs	$R_{25} \Delta R/R \leq \pm 2\%$
4.7	低温储存 Low temperature storage	IEC60068-2-1	温度: -40°C 时间: 1000 小时 Temp : -40°C , Time : 1000hrs	$R_{25} \Delta R/R \leq \pm 2\%$

▲注: 1) 稳态湿热及温度快速变化试验结束后, 样品需在常温环境下静置 2 小时后再做性能测试;

▲Note: 1) After the test of steady-state humid heat and rapid temperature change, the sample should be kept for 2 hours at room temperature before performance test ;

2) 高温存储及低温存储结束后, 需随测试环境自然恢复至常温, 再取出做性能测试。

2) After the test of high - and low-temperature storage is complete, and then take it out for performance test when the test environment naturally regain to normal temperature.

5、产品包装 Product packaging

5.1 包装方式 Packing Type

散装方式 Bulk Type 编带方式 Reel Type

5.2 包装规格 Packing specification

No.	包装规格 Packing specification	包装材料、尺寸 Packing material, size	产品数量 Quantity
1	包装袋 Packing bag	自封口袋(self sealing bag) W×H=125mm×90mm	500
2	编带包装盒 Reel Packing box	265mm*80mm*75mm	5000

6、安装&使用注意事项 Installation & Use precautions

6.1 本产品的用途：温度测量与控制；application:test and control for temperature

6.2 避免过大的电流引起元件自身发热而产生测量误差；

To avoid of testing tolerance caused by huge current upon the self-heat of component.

6.3 烙铁焊接时，焊接处距包封头部距离至少 2mm，焊接温度应低于 360℃，焊接时间<3ses；

When welded by soldering iron,weld spot should be 2mm at least from head,weld temperature should be under 360℃,time<3ses

6.4 若引线弯曲时，弯曲点应距玻壳端 2mm 以上，以免造成玻壳损伤；

In case of lead bending,the dot of bending should be above 2mm from glass shell to avoid of damaging for glass shell.

6.5 储存温度：-10℃ ~ 40℃；储存湿度：≤75% RH；

storage temp:-10℃ ~ 40℃；storage humidity:≤75% RH

6.6 避免存放在具有腐蚀性气体及光照的环境下；To avoid of leaving with such environment as corrosive gases and illumination

6.6 包装打开后需重新密封保存，贮存期 1 年，超过贮存期，可按本标准规定的项目重新检验，如符合要求仍可使用；

The packing need to be resealed since opened,storage period 1 year.once valid,it should be retest according to regulated of criterion and can be still used if meet the requirement.

6.7 如在加工过程中需使用热缩管，热缩管热缩时不可使用电吹风进行吹制，建议热缩工艺，将套好热缩管后的产品放入恒温烘箱中，按 110℃/10-12min 进行热缩；

In case of useing heat-shrink tube,hair drier is prohibited.we suggest that put the product with heat shrink into constant-temperature box and heat shrink under 110℃/10-12min

7、产品认证 Product certification

No.	项目 Projects	产品认证 Product certification
8.1	质量管理体系认证 Quality Management System Certification	ISO9001:2015
		IATF16949: 2016
8.2	环境管理体系认证 Environmental Management System Certification	ISO14001:2015
8.3	环保检测报告 Environmental test report	RoHS 2.0
8.4	CQC 认证 CQC certificate	
8.5	TUV 认证 UL certificate	R50245892
8.6	UL 认证 UL certificate	E240991
8.7	苏省高新技术产品认证 High-tech product certificate in Jiangsu Province	
8.8	产品通过 AEC-Q200 测试 Passed by AECQ-200	

附表 I (Attachment I)

南京时恒阻温特性表 SHIHENG R-T Table

R25=10K Ω 精度: $\pm 5\%$ B25/50=3380K, B25/85=3435K 精度: $\pm 1\%$ (P447-17)							
温度($^{\circ}\text{C}$)	电阻(K Ω)			电阻精度(%)		温度精度($^{\circ}\text{C}$)	
	最小值	中心值	最大值	ΔR	$-\Delta R$	ΔT	$-\Delta T$
-40	197.659	214.54	232.28	8.269	-7.868	1.37	-1.304
-39	186.987	202.843	219.493	8.208	-7.816	1.37	-1.305
-38	176.817	191.702	207.321	8.147	-7.764	1.37	-1.306
-37	167.158	181.127	195.773	8.085	-7.712	1.37	-1.307
-36	158.009	171.117	184.848	8.024	-7.659	1.371	-1.308
-35	149.363	161.661	174.535	7.963	-7.607	1.371	-1.31
-34	141.206	152.746	164.816	7.901	-7.554	1.371	-1.311
-33	133.52	144.35	155.668	7.84	-7.502	1.372	-1.312
-32	126.285	136.451	147.068	7.78	-7.45	1.372	-1.314
-31	119.479	129.025	138.986	7.719	-7.398	1.372	-1.315
-30	113.08	122.047	131.396	7.66	-7.347	1.373	-1.317
-29	107.064	115.491	124.269	7.6	-7.296	1.373	-1.318
-28	101.41	109.332	117.577	7.541	-7.245	1.374	-1.32
-27	96.096	103.546	111.294	7.483	-7.194	1.374	-1.321
-26	91.099	98.109	105.394	7.425	-7.144	1.374	-1.322
-25	86.401	93	99.852	7.367	-7.095	1.374	-1.324
-24	81.982	88.196	94.644	7.31	-7.045	1.375	-1.325
-23	77.823	83.678	89.748	7.254	-6.996	1.375	-1.326
-22	73.907	79.426	85.144	7.198	-6.948	1.375	-1.327
-21	70.22	75.424	80.812	7.143	-6.9	1.375	-1.328
-20	66.745	71.655	76.734	7.088	-6.852	1.375	-1.329

-19	63.469	68.104	72.894	7.033	-6.805	1.375	-1.33
-18	60.379	64.755	69.275	6.979	-6.758	1.374	-1.331
-17	57.462	61.596	65.863	6.926	-6.711	1.374	-1.332
-16	54.708	58.615	62.644	6.873	-6.665	1.374	-1.332
-15	52.106	55.8	59.606	6.82	-6.619	1.374	-1.333
-14	49.647	53.14	56.737	6.768	-6.573	1.373	-1.334
-13	47.321	50.626	54.027	6.716	-6.528	1.373	-1.334
-12	45.121	48.249	51.465	6.665	-6.483	1.372	-1.335
-11	43.037	45.999	49.042	6.614	-6.438	1.372	-1.335
-10	41.064	43.87	46.749	6.564	-6.394	1.371	-1.335
-9	39.195	41.853	44.579	6.513	-6.35	1.37	-1.336
-8	37.423	39.942	42.524	6.464	-6.306	1.369	-1.336
-7	35.742	38.13	40.576	6.414	-6.263	1.369	-1.336
-6	34.148	36.412	38.73	6.365	-6.219	1.368	-1.336
-5	32.634	34.783	36.98	6.317	-6.176	1.367	-1.336
-4	31.198	33.236	35.32	6.268	-6.134	1.366	-1.337
-3	29.833	31.768	33.744	6.22	-6.091	1.365	-1.337
-2	28.536	30.374	32.249	6.173	-6.049	1.364	-1.337
-1	27.304	29.049	30.828	6.125	-6.007	1.363	-1.336
0	26.113	27.77	29.457	6.077	-5.965	1.362	-1.337
1	25.017	26.593	28.197	6.032	-5.924	1.36	-1.336
2	23.957	25.454	26.978	5.985	-5.883	1.359	-1.336
3	22.948	24.371	25.819	5.939	-5.842	1.358	-1.336
4	21.987	23.341	24.717	5.893	-5.801	1.357	-1.336
5	21.072	22.36	23.668	5.848	-5.761	1.356	-1.335
6	20.2	21.426	22.67	5.803	-5.721	1.354	-1.335
7	19.37	20.537	21.719	5.758	-5.681	1.353	-1.335

8	18.579	19.689	20.814	5.713	-5.641	1.351	-1.334
9	17.824	18.882	19.953	5.669	-5.601	1.35	-1.334
10	17.093	18.1	19.118	5.624	-5.561	1.35	-1.335
11	16.419	17.379	18.349	5.581	-5.523	1.347	-1.333
12	15.764	16.679	17.603	5.538	-5.484	1.346	-1.332
13	15.139	16.011	16.891	5.495	-5.446	1.344	-1.332
14	14.543	15.374	16.213	5.452	-5.407	1.342	-1.331
15	13.974	14.767	15.566	5.41	-5.369	1.341	-1.331
16	13.43	14.186	14.948	5.367	-5.331	1.339	-1.33
17	12.911	13.632	14.358	5.325	-5.293	1.338	-1.329
18	12.414	13.103	13.796	5.284	-5.256	1.336	-1.329
19	11.94	12.598	13.258	5.242	-5.219	1.334	-1.328
20	11.487	12.115	12.745	5.201	-5.182	1.332	-1.327
21	11.053	11.653	12.254	5.16	-5.145	1.331	-1.327
22	10.639	11.212	11.786	5.12	-5.108	1.329	-1.326
23	10.242	10.789	11.338	5.079	-5.072	1.327	-1.325
24	9.863	10.386	10.909	5.039	-5.035	1.325	-1.324
25	9.5	10	10.5	5	-5	1.323	-1.323
26	9.145	9.63	10.115	5.039	-5.035	1.342	-1.341
27	8.806	9.276	9.747	5.078	-5.071	1.361	-1.359
28	8.481	8.937	9.395	5.117	-5.106	1.381	-1.378
29	8.17	8.613	9.057	5.156	-5.141	1.4	-1.396
30	7.873	8.302	8.734	5.195	-5.176	1.42	-1.414
31	7.588	8.005	8.424	5.233	-5.211	1.439	-1.433
32	7.314	7.719	8.126	5.272	-5.245	1.459	-1.452
33	7.053	7.446	7.841	5.31	-5.279	1.479	-1.47
34	6.802	7.184	7.568	5.347	-5.313	1.499	-1.489

35	6.562	6.932	7.306	5.385	-5.347	1.519	-1.508
36	6.331	6.691	7.054	5.422	-5.38	1.539	-1.527
37	6.11	6.46	6.812	5.459	-5.414	1.559	-1.546
38	5.898	6.237	6.58	5.496	-5.447	1.58	-1.565
39	5.694	6.024	6.358	5.533	-5.48	1.6	-1.585
40	5.499	5.819	6.144	5.569	-5.512	1.621	-1.604
41	5.311	5.623	5.938	5.606	-5.545	1.641	-1.623
42	5.131	5.434	5.74	5.642	-5.577	1.662	-1.643
43	4.958	5.252	5.551	5.678	-5.609	1.683	-1.663
44	4.791	5.078	5.368	5.713	-5.641	1.704	-1.682
45	4.631	4.91	5.192	5.749	-5.673	1.725	-1.702
46	4.478	4.749	5.023	5.784	-5.704	1.746	-1.722
47	4.33	4.594	4.861	5.819	-5.736	1.767	-1.742
48	4.188	4.444	4.705	5.854	-5.767	1.788	-1.762
49	4.051	4.301	4.554	5.889	-5.798	1.81	-1.782
50	3.92	4.163	4.409	5.924	-5.828	1.831	-1.802
51	3.793	4.029	4.27	5.958	-5.859	1.853	-1.822
52	3.671	3.901	4.135	5.992	-5.889	1.874	-1.842
53	3.554	3.778	4.006	6.026	-5.92	1.896	-1.863
54	3.441	3.659	3.881	6.06	-5.95	1.918	-1.883
55	3.332	3.544	3.76	6.094	-5.98	1.94	-1.903
56	3.228	3.434	3.644	6.128	-6.009	1.962	-1.924
57	3.127	3.328	3.533	6.161	-6.039	1.984	-1.945
58	3.029	3.225	3.425	6.194	-6.068	2.006	-1.965
59	2.935	3.126	3.321	6.227	-6.098	2.028	-1.986
60	2.845	3.03	3.22	6.26	-6.127	2.051	-2.007
61	2.757	2.938	3.123	6.293	-6.156	2.073	-2.028

62	2.673	2.849	3.03	6.326	-6.185	2.096	-2.049
63	2.592	2.764	2.939	6.358	-6.213	2.118	-2.07
64	2.513	2.681	2.852	6.391	-6.242	2.141	-2.091
65	2.438	2.601	2.768	6.423	-6.27	2.164	-2.112
66	2.365	2.524	2.687	6.455	-6.298	2.186	-2.133
67	2.294	2.449	2.608	6.487	-6.326	2.209	-2.155
68	2.226	2.377	2.532	6.519	-6.354	2.232	-2.176
69	2.16	2.307	2.459	6.55	-6.382	2.255	-2.198
70	2.096	2.24	2.388	6.582	-6.41	2.279	-2.219
71	2.035	2.175	2.319	6.613	-6.438	2.302	-2.241
72	1.975	2.112	2.252	6.645	-6.465	2.325	-2.262
73	1.918	2.051	2.188	6.676	-6.492	2.348	-2.284
74	1.862	1.992	2.126	6.707	-6.52	2.372	-2.306
75	1.809	1.935	2.066	6.738	-6.547	2.396	-2.328
76	1.757	1.88	2.008	6.769	-6.574	2.419	-2.349
77	1.707	1.827	1.951	6.799	-6.6	2.443	-2.371
78	1.658	1.776	1.897	6.83	-6.627	2.467	-2.393
79	1.611	1.726	1.844	6.86	-6.654	2.49	-2.415
80	1.565	1.677	1.793	6.891	-6.68	2.514	-2.438
81	1.521	1.631	1.743	6.921	-6.707	2.538	-2.46
82	1.478	1.585	1.695	6.951	-6.733	2.563	-2.482
83	1.437	1.541	1.649	6.981	-6.759	2.587	-2.504
84	1.397	1.499	1.604	7.011	-6.785	2.611	-2.527
85	1.362	1.462	1.564	7.038	-6.809	2.638	-2.552
86	1.321	1.418	1.518	7.07	-6.837	2.66	-2.572
87	1.284	1.379	1.477	7.1	-6.863	2.684	-2.594
88	1.249	1.342	1.437	7.13	-6.888	2.709	-2.617

89	1.215	1.305	1.399	7.159	-6.914	2.733	-2.64
90	1.182	1.27	1.361	7.188	-6.939	2.758	-2.663
91	1.15	1.236	1.325	7.217	-6.965	2.783	-2.686
92	1.119	1.203	1.29	7.247	-6.99	2.808	-2.708
93	1.089	1.171	1.256	7.276	-7.015	2.833	-2.731
94	1.059	1.14	1.223	7.304	-7.04	2.858	-2.755
95	1.031	1.109	1.191	7.333	-7.065	2.883	-2.778
96	1.004	1.08	1.16	7.362	-7.09	2.908	-2.801
97	0.977	1.052	1.129	7.391	-7.115	2.934	-2.824
98	0.951	1.024	1.1	7.419	-7.139	2.959	-2.847
99	0.926	0.997	1.072	7.448	-7.164	2.984	-2.871
100	0.908	0.979	1.052	7.468	-7.182	3.016	-2.901
101	0.878	0.946	1.017	7.504	-7.213	3.036	-2.918
102	0.855	0.922	0.991	7.532	-7.237	3.061	-2.941
103	0.833	0.898	0.966	7.56	-7.261	3.087	-2.965
104	0.811	0.875	0.941	7.588	-7.286	3.113	-2.989
105	0.79	0.852	0.917	7.616	-7.31	3.139	-3.013
106	0.77	0.831	0.894	7.644	-7.334	3.165	-3.036
107	0.75	0.809	0.872	7.672	-7.357	3.191	-3.06
108	0.731	0.789	0.85	7.7	-7.381	3.217	-3.084
109	0.712	0.769	0.828	7.727	-7.405	3.244	-3.108
110	0.694	0.75	0.808	7.755	-7.428	3.27	-3.133
111	0.676	0.731	0.788	7.782	-7.452	3.297	-3.157
112	0.659	0.713	0.768	7.809	-7.475	3.323	-3.181
113	0.643	0.695	0.749	7.837	-7.499	3.35	-3.205
114	0.626	0.677	0.731	7.864	-7.522	3.377	-3.23
115	0.611	0.661	0.713	7.891	-7.545	3.403	-3.254

116	0.596	0.644	0.695	7.918	-7.568	3.43	-3.279
117	0.581	0.629	0.679	7.945	-7.591	3.457	-3.304
118	0.566	0.613	0.662	7.971	-7.614	3.484	-3.328
119	0.552	0.598	0.646	7.998	-7.637	3.512	-3.353
120	0.539	0.584	0.63	8.025	-7.66	3.539	-3.378
121	0.526	0.569	0.615	8.051	-7.683	3.566	-3.403
122	0.513	0.556	0.601	8.078	-7.705	3.594	-3.428
123	0.5	0.542	0.586	8.104	-7.728	3.621	-3.453
124	0.488	0.529	0.572	8.13	-7.75	3.649	-3.478
125	0.476	0.517	0.559	8.156	-7.772	3.677	-3.504
126	0.465	0.504	0.545	8.183	-7.795	3.704	-3.529
127	0.454	0.492	0.533	8.209	-7.817	3.732	-3.554
128	0.443	0.481	0.52	8.235	-7.839	3.76	-3.58
129	0.432	0.469	0.508	8.26	-7.861	3.789	-3.605
130	0.422	0.458	0.496	8.286	-7.883	3.817	-3.631
131	0.412	0.447	0.485	8.312	-7.905	3.845	-3.657
132	0.402	0.437	0.473	8.337	-7.926	3.873	-3.682
133	0.393	0.427	0.462	8.363	-7.948	3.902	-3.708
134	0.384	0.417	0.452	8.388	-7.97	3.93	-3.734
135	0.375	0.407	0.441	8.414	-7.991	3.959	-3.76
136	0.366	0.398	0.431	8.439	-8.013	3.988	-3.786
137	0.357	0.389	0.422	8.464	-8.034	4.017	-3.813
138	0.349	0.38	0.412	8.489	-8.055	4.046	-3.839
139	0.341	0.371	0.403	8.514	-8.076	4.075	-3.865
140	0.333	0.363	0.394	8.539	-8.098	4.104	-3.892
141	0.326	0.354	0.385	8.564	-8.119	4.133	-3.918
142	0.318	0.346	0.376	8.589	-8.14	4.163	-3.945

143	0.311	0.339	0.368	8.613	-8.16	4.192	-3.972
144	0.304	0.331	0.36	8.638	-8.181	4.222	-3.998
145	0.297	0.324	0.352	8.662	-8.202	4.251	-4.025
146	0.29	0.316	0.344	8.687	-8.222	4.281	-4.052
147	0.284	0.309	0.336	8.711	-8.243	4.311	-4.079
148	0.278	0.303	0.329	8.735	-8.263	4.341	-4.106
149	0.271	0.296	0.322	8.76	-8.284	4.371	-4.134
150	0.265	0.29	0.315	8.784	-8.304	4.401	-4.161
151	0.26	0.283	0.308	8.808	-8.324	4.431	-4.188
152	0.254	0.277	0.302	8.831	-8.344	4.462	-4.216
153	0.248	0.271	0.295	8.855	-8.364	4.492	-4.243
154	0.243	0.265	0.289	8.879	-8.384	4.523	-4.271
155	0.238	0.259	0.283	8.903	-8.404	4.553	-4.298
156	0.232	0.254	0.277	8.926	-8.424	4.584	-4.326
157	0.227	0.248	0.271	8.95	-8.444	4.615	-4.354
158	0.223	0.243	0.265	8.973	-8.463	4.646	-4.382
159	0.218	0.238	0.26	8.996	-8.483	4.677	-4.41
160	0.213	0.233	0.254	9.019	-8.502	4.708	-4.438
161	0.209	0.228	0.249	9.042	-8.522	4.739	-4.467
162	0.204	0.223	0.244	9.065	-8.541	4.771	-4.495
163	0.2	0.219	0.239	9.088	-8.56	4.802	-4.523
164	0.196	0.214	0.234	9.111	-8.579	4.834	-4.552
165	0.192	0.21	0.229	9.134	-8.599	4.866	-4.58
166	0.188	0.205	0.224	9.157	-8.618	4.897	-4.609
167	0.184	0.201	0.22	9.179	-8.636	4.929	-4.638
168	0.18	0.197	0.215	9.202	-8.655	4.961	-4.667
169	0.176	0.193	0.211	9.224	-8.674	4.993	-4.696

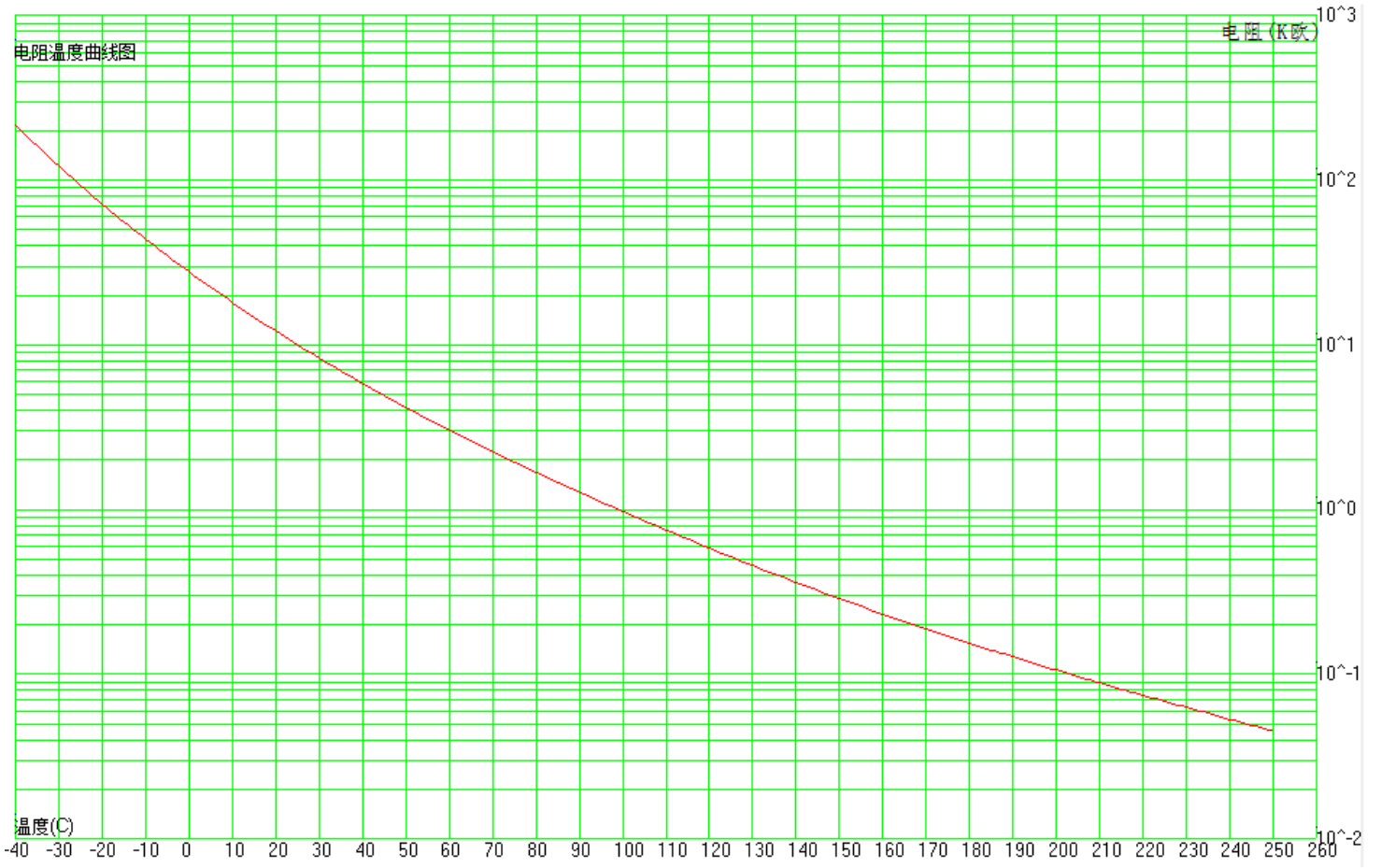


170	0.173	0.189	0.207	9.247	-8.693	5.026	-4.725
171	0.169	0.185	0.203	9.269	-8.711	5.058	-4.754
172	0.166	0.182	0.199	9.291	-8.73	5.09	-4.783
173	0.162	0.178	0.195	9.313	-8.748	5.123	-4.812
174	0.159	0.174	0.191	9.335	-8.767	5.155	-4.841
175	0.156	0.171	0.187	9.357	-8.785	5.188	-4.871
176	0.153	0.168	0.183	9.379	-8.803	5.221	-4.9
177	0.15	0.164	0.18	9.401	-8.821	5.254	-4.93
178	0.147	0.161	0.176	9.422	-8.839	5.287	-4.96
179	0.144	0.158	0.173	9.444	-8.857	5.32	-4.99
180	0.141	0.155	0.169	9.465	-8.875	5.353	-5.02
181	0.138	0.152	0.166	9.487	-8.893	5.387	-5.05
182	0.136	0.149	0.163	9.508	-8.911	5.42	-5.08
183	0.133	0.146	0.16	9.529	-8.928	5.454	-5.11
184	0.13	0.143	0.157	9.55	-8.946	5.487	-5.14
185	0.128	0.14	0.154	9.572	-8.964	5.521	-5.17
186	0.125	0.138	0.151	9.593	-8.981	5.555	-5.201
187	0.123	0.135	0.148	9.614	-8.998	5.589	-5.231
188	0.121	0.133	0.145	9.634	-9.016	5.623	-5.262
189	0.118	0.13	0.143	9.655	-9.033	5.657	-5.293
190	0.116	0.128	0.14	9.676	-9.05	5.691	-5.323
191	0.114	0.125	0.137	9.696	-9.067	5.726	-5.354
192	0.112	0.123	0.135	9.717	-9.084	5.76	-5.385
193	0.11	0.121	0.132	9.738	-9.101	5.795	-5.416
194	0.108	0.118	0.13	9.758	-9.118	5.83	-5.447
195	0.106	0.116	0.128	9.778	-9.135	5.864	-5.479
196	0.104	0.114	0.125	9.798	-9.152	5.899	-5.51



197	0.102	0.112	0.123	9.819	-9.168	5.934	-5.541
198	0.1	0.11	0.121	9.839	-9.185	5.969	-5.573
199	0.098	0.108	0.119	9.859	-9.202	6.005	-5.604
200	0.096	0.106	0.117	9.879	-9.218	6.04	-5.636
201	0.094	0.104	0.114	9.899	-9.234	6.075	-5.668
202	0.093	0.102	0.112	9.918	-9.251	6.111	-5.699
203	0.091	0.1	0.11	9.938	-9.267	6.146	-5.731
204	0.089	0.099	0.108	9.958	-9.283	6.182	-5.763
205	0.088	0.097	0.107	9.978	-9.3	6.218	-5.795
206	0.086	0.095	0.105	9.997	-9.316	6.254	-5.827
207	0.085	0.093	0.103	10.01	-9.332	6.29	-5.86
208	0.083	0.092	0.101	10.03	-9.348	6.326	-5.892
209	0.082	0.09	0.099	10.05	-9.364	6.362	-5.924
210	0.08	0.089	0.098	10.07	-9.38	6.398	-5.957
211	0.079	0.087	0.096	10.09	-9.395	6.435	-5.989
212	0.077	0.086	0.094	10.11	-9.411	6.471	-6.022
213	0.076	0.084	0.093	10.13	-9.427	6.508	-6.055
214	0.075	0.083	0.091	10.15	-9.443	6.545	-6.088
215	0.073	0.081	0.09	10.17	-9.458	6.581	-6.121
216	0.072	0.08	0.088	10.18	-9.474	6.618	-6.153
217	0.071	0.078	0.087	10.2	-9.489	6.655	-6.187
218	0.07	0.077	0.085	10.22	-9.505	6.692	-6.22
219	0.069	0.076	0.084	10.24	-9.52	6.729	-6.253
220	0.067	0.075	0.082	10.26	-9.535	6.767	-6.286
221	0.066	0.073	0.081	10.28	-9.551	6.804	-6.32
222	0.065	0.072	0.08	10.3	-9.566	6.841	-6.353
223	0.064	0.071	0.078	10.32	-9.581	6.879	-6.386

224	0.063	0.07	0.077	10.33	-9.596	6.917	-6.42
225	0.062	0.068	0.076	10.35	-9.611	6.954	-6.454
226	0.061	0.067	0.074	10.37	-9.626	6.992	-6.487
227	0.06	0.066	0.073	10.39	-9.642	7.03	-6.521
228	0.059	0.065	0.072	10.41	-9.656	7.068	-6.555
229	0.058	0.064	0.071	10.43	-9.671	7.106	-6.589
230	0.057	0.063	0.07	10.44	-9.686	7.144	-6.623
231	0.056	0.062	0.068	10.46	-9.701	7.183	-6.657
232	0.055	0.061	0.067	10.48	-9.716	7.221	-6.692
233	0.054	0.06	0.066	10.5	-9.731	7.26	-6.726
234	0.053	0.059	0.065	10.52	-9.745	7.298	-6.76
235	0.052	0.058	0.064	10.53	-9.76	7.337	-6.795
236	0.051	0.057	0.063	10.55	-9.775	7.375	-6.829
237	0.051	0.056	0.062	10.57	-9.789	7.414	-6.864
238	0.05	0.055	0.061	10.59	-9.804	7.453	-6.898
239	0.049	0.054	0.06	10.61	-9.819	7.492	-6.933
240	0.048	0.053	0.059	10.62	-9.833	7.531	-6.968
241	0.047	0.053	0.058	10.64	-9.848	7.57	-7.003
242	0.047	0.052	0.057	10.66	-9.862	7.61	-7.037
243	0.046	0.051	0.056	10.68	-9.877	7.649	-7.072
244	0.045	0.05	0.056	10.69	-9.891	7.688	-7.107
245	0.044	0.049	0.055	10.71	-9.905	7.728	-7.142
246	0.044	0.049	0.054	10.73	-9.92	7.767	-7.178
247	0.043	0.048	0.053	10.75	-9.934	7.807	-7.213
248	0.042	0.047	0.052	10.77	-9.948	7.847	-7.248
249	0.042	0.046	0.051	10.78	-9.963	7.887	-7.283
250	0.041	0.046	0.05	10.8	-9.977	7.926	-7.319



附表 II (Attachment II)

南京时恒电阻误差曲线图
Nanjing Shiheng The curve of resistance tolerance

