



## 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- 103F3435 UL:E240991

B0

2022-8-11

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**    **F**    **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 F: 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)

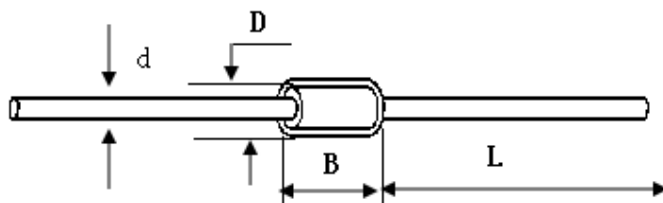
## 2、电气性能 Electrical Characteristics

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 <sub>25℃</sub>	T <sub>a</sub> =25±0.01℃ Test Power≤0.1mW	KΩ	10KΩ±1%
2.2	B 值 B-value	B <sub>25/85</sub>	$B=[(T_a \times T_b)/(T_b - T_a)] \times \ln(R_a/R_b)$ T <sub>a</sub> =25±0.01℃ T <sub>b</sub> =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 <sub>max</sub>	/	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

<b>产品图纸</b> 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.	MF58-103F3435	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:  $10K\Omega \pm 1\%$  (Zero Power Resistance: R25:  $10K\Omega \pm 1\%$ );
- 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: $10 \pm 1$ N, 时间: $10 \pm 1$ 秒 Fixed resistor end, Pull strength: $5 \pm 1$ N, time: $10 \pm 1$ 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 $5 \pm 1$ 秒 Temperature of tin pot: $260 \pm 5^\circ\text{C}$ , insert depth from body of resistance 6mm, time $5 \pm 1$ 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	$-40^\circ\text{C}$ 30min $\rightarrow$ $25^\circ\text{C}$ 5min $\rightarrow$ $250^\circ\text{C}$ 30min $\rightarrow$ $25^\circ\text{C}$ 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: $-40^\circ\text{C}$ 时间: 1000 小时 Temp : $-40^\circ\text{C}$ , 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.

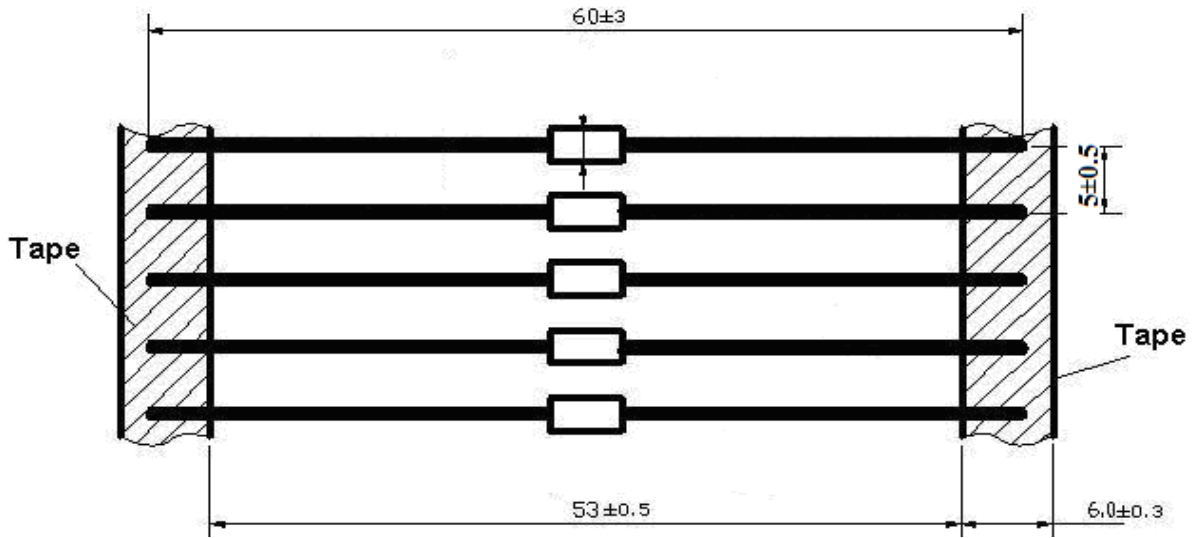
#### 5、产品包装 Product packaging

##### 5.1 包装方式 Packing Type

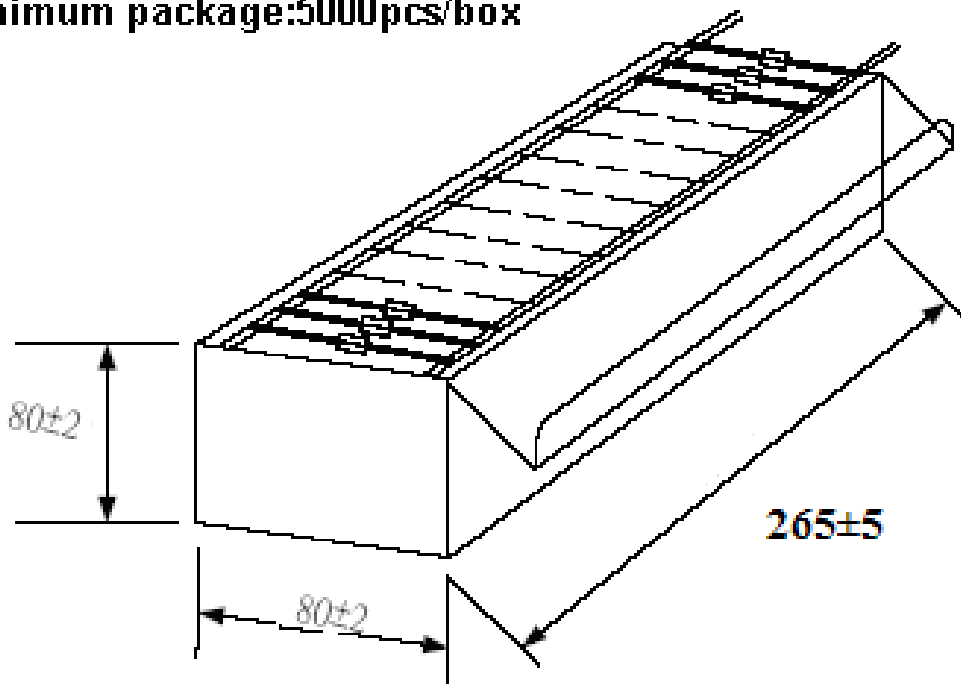
散装方式 Bulk Type     编带方式 Reel Type

##### 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



minimum package:5000pcs/box



编带方式 Reel Type

## 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=10KΩ 精度: ±1% B25/50=3380K, B25/85=3435K 精度: ±1%(P447-17)							
温度(°C)	电阻(KΩ)			电阻精度(%)		温度精度(°C)	
	最小值	中心值	最大值	△R	-△R	△T	-△T
-40	205.981	214.54	223.431	4.144	-3.989	0.687	-0.661
-39	194.86	202.843	211.131	4.086	-3.935	0.682	-0.657
-38	184.262	191.702	199.423	4.027	-3.881	0.677	-0.652
-37	174.196	181.127	188.315	3.968	-3.826	0.672	-0.648
-36	164.662	171.117	177.806	3.909	-3.771	0.667	-0.644
-35	155.652	161.661	167.886	3.85	-3.717	0.663	-0.64
-34	147.152	152.746	158.537	3.791	-3.662	0.658	-0.635
-33	139.142	144.35	149.738	3.732	-3.607	0.653	-0.631
-32	131.602	136.451	141.465	3.674	-3.553	0.648	-0.626
-31	124.51	129.025	133.691	3.616	-3.499	0.643	-0.622
-30	117.841	122.047	126.39	3.558	-3.446	0.638	-0.617
-29	111.572	115.491	119.535	3.501	-3.392	0.632	-0.613
-28	105.68	109.332	113.098	3.444	-3.339	0.627	-0.608
-27	100.142	103.546	107.055	3.388	-3.287	0.622	-0.603
-26	94.935	98.109	101.379	3.332	-3.235	0.617	-0.598
-25	90.039	93	96.048	3.277	-3.183	0.611	-0.594
-24	85.433	88.196	91.038	3.222	-3.131	0.606	-0.589
-23	81.099	83.678	86.329	3.168	-3.08	0.6	-0.584
-22	77.019	79.426	81.9	3.114	-3.03	0.595	-0.578
-21	73.177	75.424	77.734	3.061	-2.98	0.589	-0.573
-20	69.555	71.655	73.811	3.008	-2.93	0.583	-0.568



-19	66.141	68.104	70.117	2.956	-2.881	0.577	-0.563
-18	62.921	64.755	66.636	2.904	-2.832	0.572	-0.557
-17	59.882	61.596	63.354	2.852	-2.783	0.566	-0.552
-16	57.012	58.615	60.258	2.801	-2.735	0.56	-0.546
-15	54.3	55.8	57.335	2.751	-2.687	0.554	-0.541
-14	51.738	53.14	54.576	2.701	-2.639	0.548	-0.535
-13	49.314	50.626	51.969	2.651	-2.592	0.542	-0.53
-12	47.02	48.249	49.504	2.602	-2.545	0.535	-0.524
-11	44.849	45.999	47.174	2.553	-2.499	0.529	-0.518
-10	42.793	43.87	44.968	2.504	-2.453	0.523	-0.512
-9	40.845	41.853	42.881	2.456	-2.407	0.516	-0.506
-8	38.998	39.942	40.904	2.408	-2.361	0.51	-0.5
-7	37.247	38.13	39.03	2.36	-2.316	0.503	-0.494
-6	35.585	36.412	37.255	2.313	-2.271	0.497	-0.488
-5	34.008	34.783	35.571	2.266	-2.226	0.49	-0.481
-4	32.511	33.236	33.974	2.22	-2.181	0.483	-0.475
-3	31.089	31.768	32.459	2.174	-2.137	0.477	-0.469
-2	29.738	30.374	31.02	2.128	-2.093	0.47	-0.462
-1	28.453	29.049	29.654	2.082	-2.05	0.463	-0.456
0	27.212	27.77	28.335	2.036	-2.006	0.456	-0.449
1	26.071	26.593	27.123	1.992	-1.963	0.449	-0.443
2	24.965	25.454	25.95	1.948	-1.92	0.442	-0.436
3	23.914	24.371	24.835	1.903	-1.878	0.435	-0.429
4	22.913	23.341	23.775	1.859	-1.835	0.428	-0.422
5	21.959	22.36	22.766	1.816	-1.793	0.421	-0.415
6	21.051	21.426	21.806	1.772	-1.751	0.413	-0.408
7	20.186	20.537	20.892	1.729	-1.709	0.406	-0.401

8	19.361	19.689	20.022	1.686	-1.668	0.399	-0.394
9	18.575	18.882	19.192	1.644	-1.627	0.391	-0.387
10	17.812	18.1	18.389	1.601	-1.585	0.384	-0.38
11	17.11	17.379	17.65	1.559	-1.545	0.376	-0.373
12	16.428	16.679	16.932	1.518	-1.505	0.368	-0.365
13	15.777	16.011	16.248	1.476	-1.464	0.361	-0.358
14	15.155	15.374	15.595	1.435	-1.424	0.353	-0.35
15	14.562	14.767	14.973	1.394	-1.385	0.345	-0.343
16	13.995	14.186	14.378	1.353	-1.345	0.337	-0.335
17	13.454	13.632	13.811	1.313	-1.306	0.329	-0.328
18	12.937	13.103	13.27	1.273	-1.267	0.322	-0.32
19	12.443	12.598	12.753	1.233	-1.228	0.314	-0.312
20	11.97	12.115	12.259	1.193	-1.189	0.305	-0.304
21	11.519	11.653	11.787	1.154	-1.151	0.297	-0.296
22	11.087	11.212	11.337	1.115	-1.113	0.289	-0.288
23	10.673	10.789	10.906	1.076	-1.075	0.281	-0.28
24	10.278	10.386	10.494	1.038	-1.037	0.273	-0.272
25	9.9	10	10.1	1	-1	0.264	-0.264
26	9.53	9.63	9.73	1.038	-1.037	0.276	-0.276
27	9.176	9.276	9.376	1.075	-1.074	0.288	-0.288
28	8.838	8.937	9.037	1.113	-1.111	0.3	-0.299
29	8.514	8.613	8.712	1.15	-1.147	0.312	-0.311
30	8.204	8.302	8.401	1.188	-1.183	0.324	-0.323
31	7.907	8.005	8.103	1.224	-1.22	0.336	-0.335
32	7.622	7.719	7.817	1.261	-1.255	0.349	-0.347
33	7.35	7.446	7.543	1.298	-1.291	0.361	-0.359
34	7.088	7.184	7.28	1.334	-1.326	0.374	-0.372

35	6.838	6.932	7.027	1.37	-1.362	0.386	-0.384
36	6.598	6.691	6.785	1.406	-1.396	0.399	-0.396
37	6.367	6.46	6.553	1.442	-1.431	0.412	-0.409
38	6.146	6.237	6.33	1.477	-1.466	0.424	-0.421
39	5.934	6.024	6.115	1.513	-1.5	0.437	-0.434
40	5.73	5.819	5.91	1.548	-1.534	0.45	-0.446
41	5.535	5.623	5.712	1.583	-1.568	0.463	-0.459
42	5.347	5.434	5.522	1.617	-1.601	0.476	-0.472
43	5.166	5.252	5.339	1.652	-1.635	0.489	-0.484
44	4.993	5.078	5.163	1.686	-1.668	0.503	-0.497
45	4.826	4.91	4.995	1.72	-1.701	0.516	-0.51
46	4.666	4.749	4.832	1.754	-1.734	0.529	-0.523
47	4.512	4.594	4.676	1.788	-1.767	0.543	-0.536
48	4.364	4.444	4.525	1.822	-1.799	0.556	-0.549
49	4.222	4.301	4.381	1.855	-1.831	0.57	-0.563
50	4.085	4.163	4.241	1.889	-1.863	0.584	-0.576
51	3.953	4.029	4.107	1.922	-1.895	0.597	-0.589
52	3.826	3.901	3.978	1.955	-1.927	0.611	-0.603
53	3.704	3.778	3.853	1.987	-1.958	0.625	-0.616
54	3.586	3.659	3.733	2.02	-1.99	0.639	-0.629
55	3.473	3.544	3.617	2.052	-2.021	0.653	-0.643
56	3.364	3.434	3.506	2.085	-2.052	0.667	-0.657
57	3.258	3.328	3.398	2.117	-2.083	0.681	-0.67
58	3.157	3.225	3.294	2.149	-2.113	0.696	-0.684
59	3.059	3.126	3.194	2.181	-2.144	0.71	-0.698
60	2.965	3.03	3.098	2.212	-2.174	0.724	-0.712
61	2.874	2.938	3.004	2.244	-2.204	0.739	-0.726

62	2.786	2.849	2.914	2.275	-2.234	0.754	-0.74
63	2.701	2.764	2.827	2.307	-2.264	0.768	-0.754
64	2.619	2.681	2.744	2.338	-2.294	0.783	-0.768
65	2.54	2.601	2.663	2.369	-2.324	0.798	-0.783
66	2.464	2.524	2.584	2.4	-2.353	0.813	-0.797
67	2.391	2.449	2.509	2.43	-2.382	0.828	-0.811
68	2.32	2.377	2.436	2.461	-2.412	0.843	-0.826
69	2.251	2.307	2.365	2.491	-2.441	0.858	-0.84
70	2.185	2.24	2.297	2.522	-2.469	0.873	-0.855
71	2.121	2.175	2.231	2.552	-2.498	0.888	-0.869
72	2.059	2.112	2.167	2.582	-2.527	0.903	-0.884
73	1.999	2.051	2.105	2.612	-2.555	0.919	-0.899
74	1.941	1.992	2.045	2.642	-2.584	0.934	-0.914
75	1.885	1.935	1.987	2.672	-2.612	0.95	-0.928
76	1.831	1.88	1.931	2.701	-2.64	0.965	-0.943
77	1.778	1.827	1.877	2.731	-2.668	0.981	-0.958
78	1.728	1.776	1.825	2.76	-2.696	0.997	-0.973
79	1.679	1.726	1.774	2.789	-2.723	1.012	-0.988
80	1.631	1.677	1.725	2.819	-2.751	1.028	-1.004
81	1.585	1.631	1.677	2.848	-2.779	1.044	-1.019
82	1.541	1.585	1.631	2.877	-2.806	1.06	-1.034
83	1.498	1.541	1.586	2.906	-2.833	1.076	-1.05
84	1.456	1.499	1.543	2.934	-2.86	1.093	-1.065
85	1.419	1.462	1.505	2.96	-2.885	1.109	-1.081
86	1.376	1.418	1.46	2.992	-2.914	1.125	-1.096
87	1.339	1.379	1.421	3.02	-2.941	1.142	-1.112
88	1.302	1.342	1.383	3.048	-2.968	1.158	-1.127

89	1.266	1.305	1.346	3.077	-2.995	1.175	-1.143
90	1.232	1.27	1.31	3.105	-3.021	1.191	-1.159
91	1.198	1.236	1.275	3.133	-3.047	1.208	-1.175
92	1.166	1.203	1.241	3.161	-3.074	1.225	-1.191
93	1.134	1.171	1.208	3.189	-3.1	1.241	-1.207
94	1.104	1.14	1.176	3.217	-3.126	1.258	-1.223
95	1.074	1.109	1.145	3.244	-3.152	1.275	-1.239
96	1.046	1.08	1.115	3.272	-3.178	1.292	-1.255
97	1.018	1.052	1.086	3.3	-3.204	1.31	-1.272
98	0.991	1.024	1.058	3.327	-3.229	1.327	-1.288
99	0.965	0.997	1.031	3.354	-3.255	1.344	-1.304
100	0.946	0.979	1.012	3.374	-3.274	1.363	-1.322
101	0.915	0.946	0.978	3.409	-3.306	1.379	-1.337
102	0.891	0.922	0.953	3.436	-3.331	1.396	-1.354
103	0.868	0.898	0.929	3.463	-3.357	1.414	-1.37
104	0.845	0.875	0.905	3.49	-3.382	1.431	-1.387
105	0.823	0.852	0.882	3.517	-3.407	1.449	-1.404
106	0.802	0.831	0.86	3.543	-3.432	1.467	-1.421
107	0.781	0.809	0.838	3.57	-3.457	1.485	-1.438
108	0.761	0.789	0.817	3.597	-3.481	1.503	-1.455
109	0.742	0.769	0.797	3.623	-3.506	1.521	-1.472
110	0.723	0.75	0.777	3.65	-3.531	1.539	-1.489
111	0.705	0.731	0.758	3.676	-3.555	1.557	-1.506
112	0.687	0.713	0.739	3.702	-3.58	1.575	-1.523
113	0.67	0.695	0.721	3.728	-3.604	1.594	-1.54
114	0.653	0.677	0.703	3.755	-3.628	1.612	-1.558
115	0.637	0.661	0.686	3.781	-3.652	1.63	-1.575

116	0.621	0.644	0.669	3.806	-3.676	1.649	-1.593
117	0.605	0.629	0.653	3.832	-3.7	1.668	-1.61
118	0.59	0.613	0.637	3.858	-3.724	1.686	-1.628
119	0.576	0.598	0.621	3.884	-3.748	1.705	-1.646
120	0.562	0.584	0.606	3.909	-3.772	1.724	-1.663
121	0.548	0.569	0.592	3.935	-3.796	1.743	-1.681
122	0.534	0.556	0.578	3.96	-3.819	1.762	-1.699
123	0.521	0.542	0.564	3.986	-3.843	1.781	-1.717
124	0.509	0.529	0.55	4.011	-3.866	1.8	-1.735
125	0.496	0.517	0.537	4.036	-3.889	1.819	-1.753
126	0.484	0.504	0.525	4.061	-3.912	1.839	-1.771
127	0.473	0.492	0.512	4.086	-3.935	1.858	-1.789
128	0.461	0.481	0.5	4.111	-3.958	1.877	-1.808
129	0.45	0.469	0.489	4.136	-3.981	1.897	-1.826
130	0.44	0.458	0.477	4.161	-4.004	1.916	-1.844
131	0.429	0.447	0.466	4.186	-4.027	1.936	-1.863
132	0.419	0.437	0.455	4.21	-4.05	1.956	-1.881
133	0.409	0.427	0.445	4.235	-4.072	1.976	-1.9
134	0.4	0.417	0.435	4.259	-4.095	1.996	-1.919
135	0.39	0.407	0.425	4.284	-4.117	2.016	-1.937
136	0.381	0.398	0.415	4.308	-4.14	2.036	-1.956
137	0.372	0.389	0.406	4.332	-4.162	2.056	-1.975
138	0.364	0.38	0.396	4.356	-4.184	2.076	-1.994
139	0.355	0.371	0.387	4.38	-4.206	2.096	-2.013
140	0.347	0.363	0.379	4.404	-4.228	2.117	-2.032
141	0.339	0.354	0.37	4.428	-4.25	2.137	-2.051
142	0.332	0.346	0.362	4.452	-4.272	2.158	-2.07

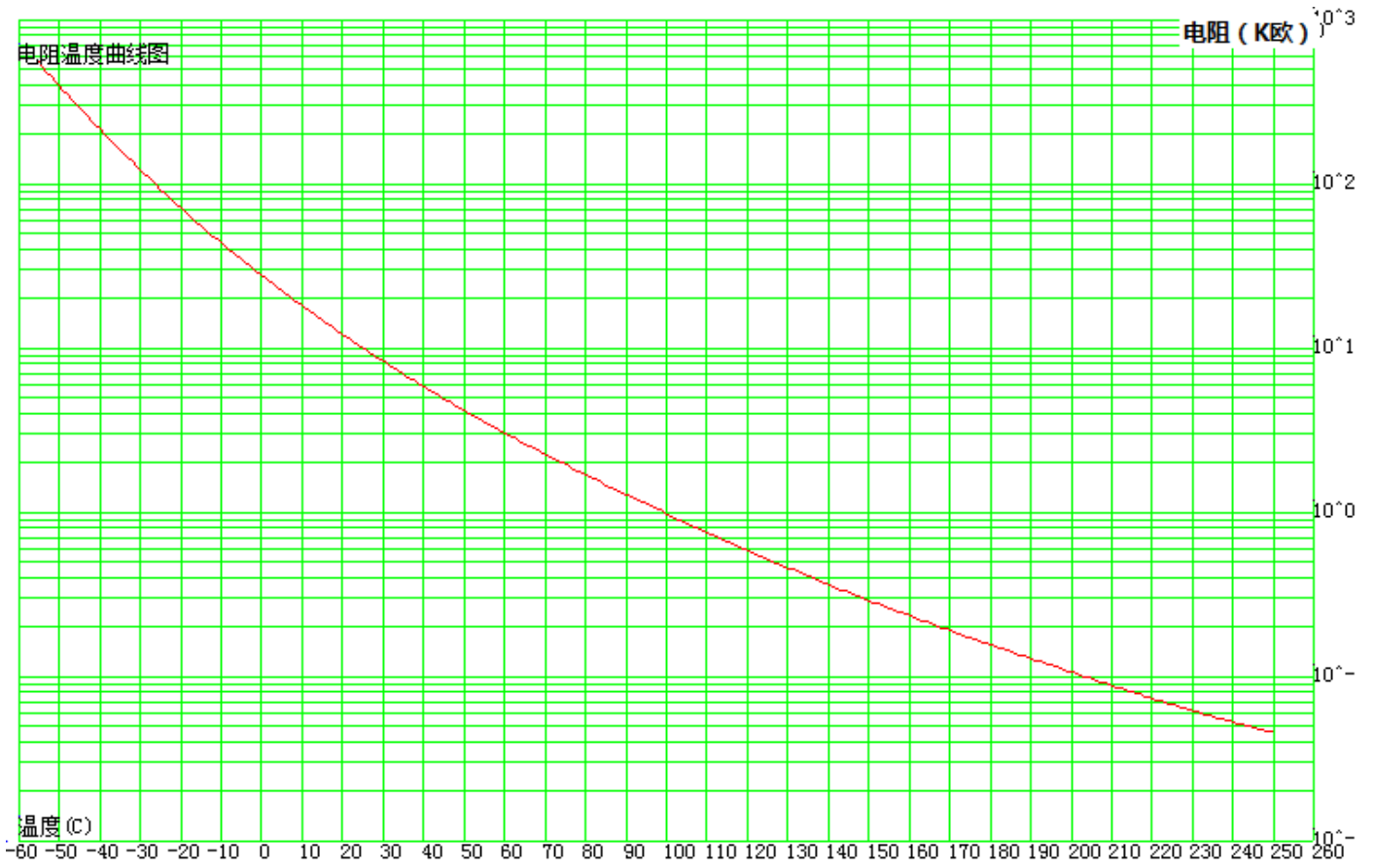
143	0.324	0.339	0.354	4.476	-4.294	2.178	-2.089
144	0.317	0.331	0.346	4.499	-4.315	2.199	-2.109
145	0.31	0.324	0.338	4.523	-4.337	2.22	-2.128
146	0.303	0.316	0.331	4.546	-4.358	2.24	-2.148
147	0.296	0.309	0.324	4.57	-4.38	2.261	-2.167
148	0.289	0.303	0.317	4.593	-4.401	2.282	-2.187
149	0.283	0.296	0.31	4.616	-4.422	2.303	-2.206
150	0.277	0.29	0.303	4.639	-4.443	2.324	-2.226
151	0.271	0.283	0.296	4.662	-4.464	2.346	-2.246
152	0.265	0.277	0.29	4.685	-4.485	2.367	-2.266
153	0.259	0.271	0.284	4.708	-4.506	2.388	-2.286
154	0.253	0.265	0.278	4.731	-4.527	2.41	-2.306
155	0.248	0.259	0.272	4.754	-4.548	2.431	-2.326
156	0.242	0.254	0.266	4.776	-4.568	2.453	-2.346
157	0.237	0.248	0.26	4.799	-4.589	2.475	-2.366
158	0.232	0.243	0.255	4.822	-4.609	2.496	-2.386
159	0.227	0.238	0.25	4.844	-4.63	2.518	-2.407
160	0.222	0.233	0.244	4.866	-4.65	2.54	-2.427
161	0.217	0.228	0.239	4.888	-4.67	2.562	-2.448
162	0.213	0.223	0.234	4.911	-4.69	2.584	-2.468
163	0.208	0.219	0.23	4.933	-4.71	2.606	-2.489
164	0.204	0.214	0.225	4.955	-4.73	2.629	-2.509
165	0.2	0.21	0.22	4.977	-4.75	2.651	-2.53
166	0.196	0.205	0.216	4.998	-4.77	2.673	-2.551
167	0.192	0.201	0.211	5.02	-4.79	2.696	-2.572
168	0.188	0.197	0.207	5.042	-4.809	2.718	-2.593
169	0.184	0.193	0.203	5.063	-4.829	2.741	-2.614

170	0.18	0.189	0.199	5.085	-4.848	2.763	-2.635
171	0.176	0.185	0.195	5.106	-4.868	2.786	-2.656
172	0.173	0.182	0.191	5.127	-4.887	2.809	-2.677
173	0.169	0.178	0.187	5.149	-4.906	2.832	-2.699
174	0.166	0.174	0.183	5.17	-4.925	2.855	-2.72
175	0.162	0.171	0.18	5.191	-4.944	2.878	-2.741
176	0.159	0.168	0.176	5.212	-4.963	2.901	-2.763
177	0.156	0.164	0.173	5.233	-4.982	2.925	-2.784
178	0.153	0.161	0.169	5.254	-5.001	2.948	-2.806
179	0.15	0.158	0.166	5.274	-5.02	2.971	-2.828
180	0.147	0.155	0.163	5.295	-5.038	2.995	-2.849
181	0.144	0.152	0.16	5.316	-5.057	3.018	-2.871
182	0.141	0.149	0.157	5.336	-5.075	3.042	-2.893
183	0.138	0.146	0.154	5.357	-5.094	3.066	-2.915
184	0.136	0.143	0.151	5.377	-5.112	3.089	-2.937
185	0.133	0.14	0.148	5.397	-5.13	3.113	-2.959
186	0.131	0.138	0.145	5.418	-5.149	3.137	-2.981
187	0.128	0.135	0.142	5.438	-5.167	3.161	-3.004
188	0.126	0.133	0.14	5.458	-5.185	3.185	-3.026
189	0.123	0.13	0.137	5.478	-5.203	3.209	-3.048
190	0.121	0.128	0.135	5.498	-5.221	3.234	-3.071
191	0.119	0.125	0.132	5.518	-5.238	3.258	-3.093
192	0.116	0.123	0.13	5.537	-5.256	3.282	-3.116
193	0.114	0.121	0.127	5.557	-5.274	3.307	-3.138
194	0.112	0.118	0.125	5.577	-5.292	3.332	-3.161
195	0.11	0.116	0.123	5.596	-5.309	3.356	-3.184
196	0.108	0.114	0.121	5.616	-5.327	3.381	-3.207



197	0.106	0.112	0.118	5.635	-5.344	3.406	-3.23
198	0.104	0.11	0.116	5.654	-5.361	3.431	-3.253
199	0.102	0.108	0.114	5.674	-5.378	3.456	-3.276
200	0.1	0.106	0.112	5.693	-5.396	3.481	-3.299
201	0.098	0.104	0.11	5.712	-5.413	3.506	-3.322
202	0.097	0.102	0.108	5.731	-5.43	3.531	-3.345
203	0.095	0.1	0.106	5.75	-5.447	3.556	-3.369
204	0.093	0.099	0.104	5.769	-5.464	3.581	-3.392
205	0.092	0.097	0.102	5.788	-5.481	3.607	-3.415
206	0.09	0.095	0.101	5.807	-5.497	3.632	-3.439
207	0.088	0.093	0.099	5.825	-5.514	3.658	-3.462
208	0.087	0.092	0.097	5.844	-5.531	3.684	-3.486
209	0.085	0.09	0.096	5.863	-5.547	3.709	-3.51
210	0.084	0.089	0.094	5.881	-5.564	3.735	-3.534
211	0.082	0.087	0.092	5.9	-5.581	3.761	-3.557
212	0.081	0.086	0.091	5.918	-5.597	3.787	-3.581
213	0.079	0.084	0.089	5.937	-5.613	3.813	-3.605
214	0.078	0.083	0.088	5.955	-5.63	3.839	-3.629
215	0.077	0.081	0.086	5.973	-5.646	3.865	-3.653
216	0.075	0.08	0.085	5.991	-5.662	3.892	-3.678
217	0.074	0.078	0.083	6.01	-5.678	3.918	-3.702
218	0.073	0.077	0.082	6.028	-5.694	3.944	-3.726
219	0.071	0.076	0.08	6.046	-5.71	3.971	-3.751
220	0.07	0.075	0.079	6.064	-5.726	3.997	-3.775
221	0.069	0.073	0.078	6.082	-5.742	4.024	-3.8
222	0.068	0.072	0.076	6.1	-5.758	4.051	-3.824
223	0.067	0.071	0.075	6.117	-5.774	4.078	-3.849

224	0.066	0.07	0.074	6.135	-5.79	4.104	-3.873
225	0.064	0.068	0.073	6.153	-5.806	4.131	-3.898
226	0.063	0.067	0.072	6.171	-5.821	4.158	-3.923
227	0.062	0.066	0.07	6.188	-5.837	4.186	-3.948
228	0.061	0.065	0.069	6.206	-5.853	4.213	-3.973
229	0.06	0.064	0.068	6.223	-5.868	4.24	-3.998
230	0.059	0.063	0.067	6.241	-5.884	4.267	-4.023
231	0.058	0.062	0.066	6.258	-5.899	4.295	-4.048
232	0.057	0.061	0.065	6.276	-5.915	4.322	-4.073
233	0.056	0.06	0.064	6.293	-5.93	4.35	-4.099
234	0.055	0.059	0.063	6.311	-5.945	4.377	-4.124
235	0.055	0.058	0.062	6.328	-5.961	4.405	-4.149
236	0.054	0.057	0.061	6.345	-5.976	4.433	-4.175
237	0.053	0.056	0.06	6.362	-5.991	4.461	-4.2
238	0.052	0.055	0.059	6.38	-6.006	4.489	-4.226
239	0.051	0.054	0.058	6.397	-6.022	4.517	-4.252
240	0.05	0.053	0.057	6.414	-6.037	4.545	-4.277
241	0.049	0.053	0.056	6.431	-6.052	4.573	-4.303
242	0.049	0.052	0.055	6.448	-6.067	4.601	-4.329
243	0.048	0.051	0.054	6.465	-6.082	4.63	-4.355
244	0.047	0.05	0.053	6.482	-6.097	4.658	-4.381
245	0.046	0.049	0.053	6.499	-6.112	4.686	-4.407
246	0.046	0.049	0.052	6.516	-6.127	4.715	-4.433
247	0.045	0.048	0.051	6.533	-6.142	4.744	-4.459
248	0.044	0.047	0.05	6.55	-6.157	4.772	-4.486
249	0.043	0.046	0.049	6.567	-6.172	4.801	-4.512
250	0.043	0.046	0.049	6.584	-6.187	4.83	-4.538



附表 II (Attachment II)

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

