编码(Coding)：JK/JXD260807005

南京时恒电子科技有限公司

Nanjing Shiheng Electronics Co.,Ltd.

产品承认书

APPROVAL SHEET

客户名称 CUSTOMER：	
产品名称 PART NAME：	MF52 测温型 NTC 热敏电阻器 MF52 Series Temp Measurement NTC Thermistor
产品型号 PART NUMBER：	MF52A 103H3950(A1)
版次 REV.NO：	C0
日期 DATE：	2026-8-7

南京时恒电子科技有限公司
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变更登记表

REVISED RECORD SHEET

版次 REV. NO	变更日期 REV.DATE	变更内容 CHANGE CONTENT	申请人 APPLICANT	批准人 APPROVED
A0	2015/10/11	版本制定。 Version formulation.	鞠晓丽	李少媛
B0	2022/4/1	更新规格书版本格式，增加版次管控，细化规格纸。 Update for version form of data sheet, add to management and control for number of edition, refine to PN and draw.	吴迎丽	李少媛
C0	2025/12/01	更新规格书版本格式，去掉：产品图纸此一页的变更履历表。 Update for version form of data sheet, Remove: Change history table on this page of the product drawing.	刘星月	李少媛

1、产品型号说明 Product model specification

MF52	A	103	H	3950	(A1)
①	②	③	④	⑤	⑥

① MF52：测温型 NTC 热敏电阻器系列 (Series Temp Measurement NTC Thermistor)

② A：指引线为镀锡线 (Refers to tinned lead)

③ 103：25℃的零功率电阻值 10kΩ (Zero Power Resistance at 25℃is 10kΩ)

④ H：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%)

⑤ 3950：$B_{25/50}$ 值 3950K ($B_{25/50}$:3950K)

⑥ (A1)：线材规格：引线外径Φ0.3mm (Wire dimension: The outer diameter of lead wire is Φ0.3mm)

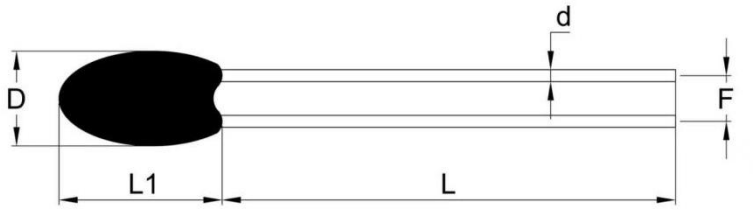
2、电气性能 Electrical Characteristics

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}	Ta=25±0.01℃ (测试功率≤0.1mW 油槽中测试) (Test Power≤0.1mW，In the oil tank)	kΩ	10kΩ±3%
2.2	B 值 B-value	$B_{25/50}$	$B=[(T_a\times T_b)/(T_b-T_a)]\times \ln(R_a/R_b)$ T_a=25±0.01℃ T_b=50±0.01℃	K	3950±1%
2.5	耗散系数 Thermal dissipation Coefficient	δ	静止空气中 In still air	mW/℃	约 2
2.6	时间常数 Thermal time constant	τ	静止空气中 In still air	sec	约 12
2.8	绝缘电阻 Insulation resistance	/	100V/DC 1min	MΩ	≥100
2.9	工作温度范围 Operating temperature range	/	/	℃	-55℃～125℃
2.10	最大额定功率 Maximum rated power	Pmax	/	mW	50
2.11	阻温特性 R&T-table	/	/	/	见附表 I See attached table I
2.12	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.	MF52A 103H3950(A1)		审核 Approve:		日期 DATE	

尺寸 Dimensions： （Unit：mm）



DMax	L1Max	LMin	d±0.05	F±0.5
2.5	4.0	25	0.3	1.7

技术要求 Technical requirements：

1) 零功率阻值：R_{25}：10kΩ±3% (Zero Power Resistance: R_{25}：10kΩ±3%)；
2) $B_{25/50}$ 数值：3950K±1% (B-value:$B_{25/50}$: 3950K±1%)；
3) 线材：φ0.3 镀锡铜包钢线 (Φ0.3 tinned copper-weld steel wire)；
4) 封装：黑色环氧树脂包封 (Black Epoxy)；
5) 符合 RoHS 环保要求 (Meet environmental protection requirements:RoHS)。

4、可靠性 Reliability

No.	项目 Test Item	试验标准 Test Standard	试验条件及方法 Test Conditions / Methods	性能要求 Acceptance Criteria
4.1	引出端强度 Terminal strength	IEC60068-2-21	固定电阻端，拉力：5±1 N，时间：10±1 秒 Fixed resistor end, Pull strength: 5±1 N, time: 10±1 sec	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.2	可焊性 Solder ability	IEC60068-2-20	温度：245±5℃，时间：2-3 秒 temperature: 245±5℃, for 2-3 sec	着锡面积≥95% Coverage area≥95%
4.3	耐焊接热 Withstand weiling temp	IEC60068-2-20	锡锅温度：260±5℃，浸入深度距电阻体 6mm，时间 5±1 秒 Temperature of tin pot: 260±5℃, insert deepth from body of resistance 6mm, time 5±1 senconds	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.4	稳态湿热 Steady humidity and heat	IEC60068-2-78	温度：40℃±2℃，湿度：93±2%，时间：500 小时 Temp: 40℃±2℃, humidity: 93±2%, Time: 500 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.5	温度快速变化 Rapid changes in temperature	IEC60068-2-14	-55℃ 30min→25℃ 5min→125℃ 30min→25℃ 5min, 5 cycles	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.6	高温储存 High temperature storage	IEC60068-2-2	温度：125℃±5℃ 时间：1000 小时 Temp: 125℃±5℃, Time: 1000 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$
4.7	低温储存 Low temperature storage	IEC60068-2-1	温度：-55℃，时间：1000 小时 Temp: -55℃, Time: 1000 hrs	无可见性损伤 No obvious damage $\|\Delta R_{25}/R_{25}\|\leqslant 2\%$

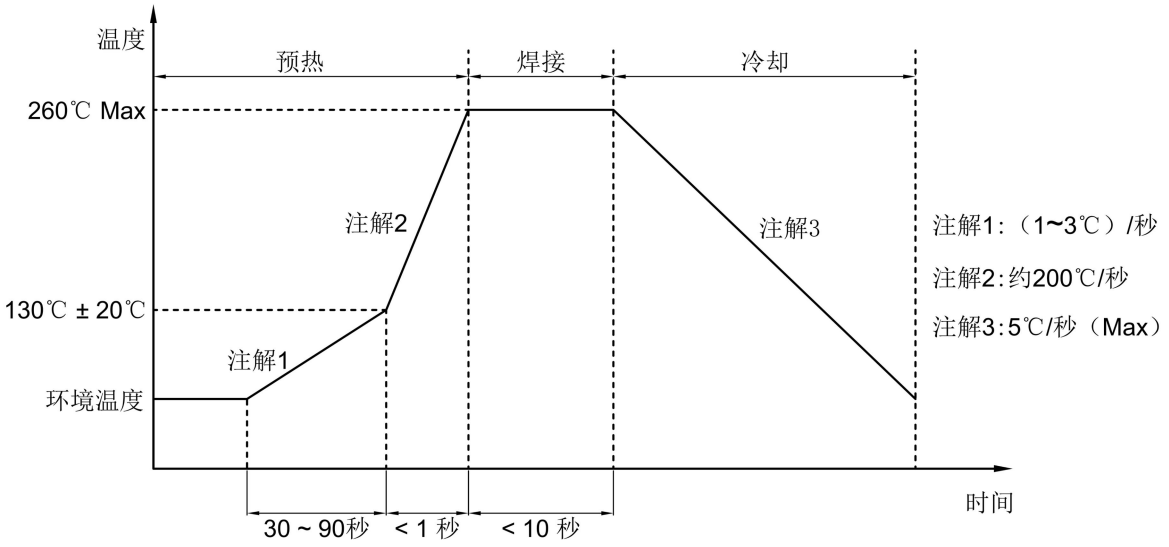
▲注： 1）稳态湿热及温度快速变化试验结束后，样品需在常温环境下静置 2 小时后再做性能测试；

▲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；

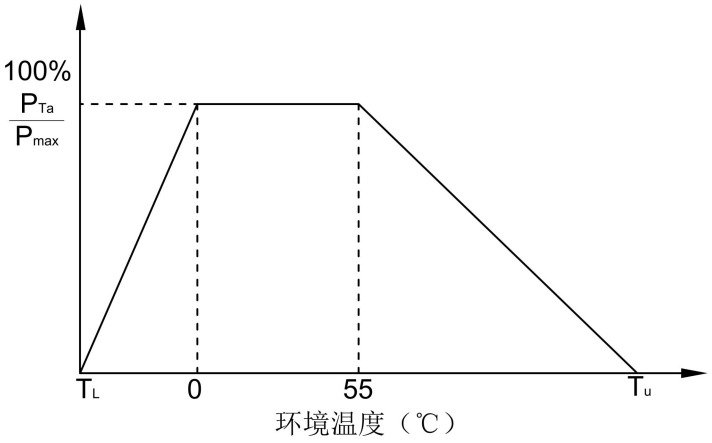
2）高温存储结束后，需随测试环境自然恢复至常温，再取出做性能测试。

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

5、推荐波峰焊曲线 Recommended wave soldering profile



6、降功耗曲线 Power Derating Curve



例如：
环境温度（T_a）=90℃
最大工作温度(T_u)=125℃
For example:
Ambient temperature（T_a）=90℃
Maximum operating temperature（T_u）=125℃

$$P_{Ta} = \frac{T_u - T_a}{T_u - 55} \times P_{max} = 50\%P_{max}$$

7、产品包装 Product packaging

7.1 包装方式 Packing Type

☑ 散装方式 Bulk Type　　☐编编带方式 Reel Type

7.2 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=11cm×12cm	
2	编编带包装盒 reel packing box	包装盒 packing box W×G×H=335mm×240mm×50mm	

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

8.1 本产品的用途：温度测量与控制；
Usage of this product: Temperature measurement and control；
8.2 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；
8.3 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 soldering by soldering iron, the distance between the welding place and the coating head should be at least 2mm, the welding temperature should be lower than 360℃, and the welding time should be less than 3sec;
8.4 储存温度：-10℃～40℃；储存湿度：≤75% RH；
Storage temperature: -10℃～40℃; storage humidity: ≤75% RH；
8.5 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；
8.6 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；
8.7 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；
If the heat shrinkable tube is used in the manufacturing process, do not use a hair dryer to shrink the tube. This is a recommended heat shrinkable process that puts the product covered shrinkable tube into a constant temperature oven, and shrink them at 110℃/10 ~ 12min；
8.8 对于 MF52A、B、C、D 等型号的测温型 NTC 热敏电阻器，其均为径向引出线结构，不得将其两引线拉成 180° 轴向使用；
For the MF52A, B, C, D Type NTC thermistors, they are all radial lead-out structure, shall not be used to pull its two leads into 180° axial；
8.9 芯片为陶瓷半导体，在使用过程中避免挤压或对环氧端头物理撞击，以免造成产品损伤。
The core chip of the product is a ceramic semiconductor. Avoid extrusion or physical impact on the epoxy end in the process of use, so as not to cause product damage。

8、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	知识产权管理体系认证 Intellectual Property Management System Certification	GB/T29490-2013
8.4	环保检测报告 Environmental test report	RoHS 2.0
8.5	CQC 认证（CQC07001019009） CQC certificate（CQC07001019009）	
8.6	TUV 认证（R50245892） TUV certificate（R50245892）	
8.7	UL/cUL 认证（E240991） UL/cUL certificate（E240991）	

附表 I Attachment I

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R_{25}=10kΩ 精度:±3%　　$B_{25/50}$=3950K 精度:±1%（P477-4B）

温度(℃)	电阻(kΩ)			电阻精度(%)		温度精度(℃)	
	最小值	中心值	最大值	△R	-△R	△T	-△T
-55	694.354	749.2	804.045	7.32	-7.32	0.992	-0.992
-54	648.781	699.508	750.235	7.251	-7.251	0.991	-0.991
-53	606.514	653.455	700.396	7.183	-7.183	0.989	-0.989
-52	567.274	610.733	654.191	7.115	-7.115	0.988	-0.988
-51	530.816	571.067	611.319	7.048	-7.048	0.986	-0.986
-50	496.918	534.215	571.512	6.981	-6.981	0.985	-0.985
-49	465.384	499.957	534.53	6.915	-6.915	0.983	-0.983
-48	436.034	468.095	500.156	6.849	-6.849	0.981	-0.981
-47	408.705	438.448	468.191	6.783	-6.783	0.979	-0.979
-46	383.248	410.851	438.454	6.718	-6.718	0.978	-0.978
-45	359.526	385.154	410.781	6.653	-6.653	0.976	-0.976
-44	337.414	361.217	385.02	6.589	-6.589	0.974	-0.974
-43	316.796	338.913	361.029	6.525	-6.525	0.972	-0.972
-42	297.565	318.123	338.681	6.462	-6.462	0.97	-0.97
-41	279.622	298.739	317.857	6.399	-6.399	0.968	-0.968
-40	262.875	280.66	298.444	6.336	-6.336	0.965	-0.965
-39	247.239	263.791	280.343	6.274	-6.274	0.963	-0.963
-38	232.635	248.046	263.458	6.213	-6.213	0.961	-0.961
-37	218.991	233.346	247.701	6.151	-6.151	0.959	-0.959
-36	206.238	219.615	232.993	6.091	-6.091	0.956	-0.956
-35	194.314	206.785	219.256	6.03	-6.03	0.954	-0.954
-34	183.16	194.792	206.423	5.971	-5.971	0.951	-0.951
-33	172.723	183.576	194.428	5.911	-5.911	0.949	-0.949
-32	162.952	173.082	183.212	5.852	-5.852	0.946	-0.946
-31	153.8	163.26	172.72	5.794	-5.794	0.943	-0.943
-30	145.225	154.062	162.9	5.736	-5.736	0.94	-0.94
-29	137.186	145.446	153.705	5.678	-5.678	0.937	-0.937
-28	129.647	137.369	145.091	5.621	-5.621	0.934	-0.934
-27	122.572	129.795	137.018	5.564	-5.564	0.931	-0.931

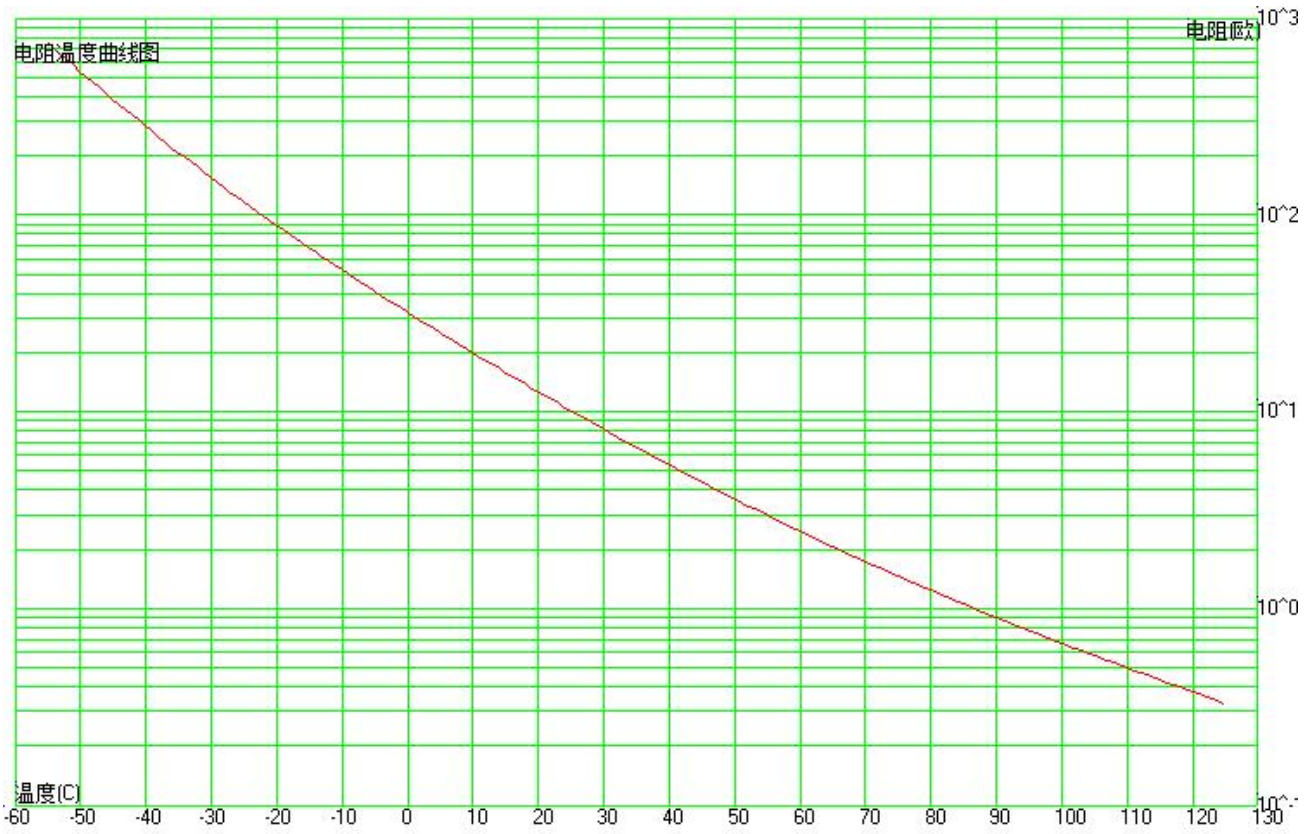
-26	115.931	122.689	129.448	5.508	-5.508	0.928	-0.928
-25	109.694	116.02	122.345	5.452	-5.452	0.925	-0.925
-24	103.832	109.756	115.679	5.396	-5.396	0.922	-0.922
-23	98.322	103.87	109.419	5.341	-5.341	0.919	-0.919
-22	93.139	98.338	103.537	5.286	-5.286	0.915	-0.915
-21	88.261	93.135	98.008	5.232	-5.232	0.912	-0.912
-20	83.669	88.238	92.808	5.178	-5.178	0.908	-0.908
-19	79.344	83.629	87.915	5.124	-5.124	0.905	-0.905
-18	75.267	79.288	83.309	5.071	-5.071	0.901	-0.901
-17	71.424	75.197	78.971	5.018	-5.018	0.897	-0.897
-16	67.799	71.341	74.884	4.965	-4.965	0.893	-0.893
-15	64.377	67.704	71.03	4.913	-4.913	0.889	-0.889
-14	61.147	64.272	67.396	4.861	-4.861	0.885	-0.885
-13	58.097	61.032	63.967	4.809	-4.809	0.881	-0.881
-12	55.214	57.972	60.731	4.757	-4.757	0.877	-0.877
-11	52.489	55.082	57.674	4.706	-4.706	0.873	-0.873
-10	49.912	52.35	54.787	4.655	-4.655	0.868	-0.868
-9	47.474	49.766	52.058	4.605	-4.605	0.864	-0.864
-8	45.167	47.322	49.478	4.554	-4.554	0.859	-0.859
-7	42.982	45.01	47.038	4.504	-4.504	0.855	-0.855
-6	40.914	42.821	44.729	4.454	-4.454	0.85	-0.85
-5	38.953	40.748	42.544	4.405	-4.405	0.846	-0.846
-4	37.096	38.785	40.475	4.355	-4.355	0.841	-0.841
-3	35.335	36.925	38.515	4.306	-4.306	0.836	-0.836
-2	33.664	35.161	36.658	4.257	-4.257	0.831	-0.831
-1	32.08	33.489	34.899	4.208	-4.208	0.826	-0.826
0	30.715	32.049	33.384	4.164	-4.164	0.819	-0.819
1	29.149	30.399	31.649	4.112	-4.112	0.816	-0.816
2	27.794	28.972	30.149	4.063	-4.063	0.81	-0.81
3	26.508	27.617	28.726	4.016	-4.016	0.805	-0.805
4	25.286	26.33	27.375	3.968	-3.968	0.8	-0.8
5	24.124	25.109	26.093	3.92	-3.92	0.794	-0.794
6	23.021	23.948	24.876	3.873	-3.873	0.788	-0.788
7	21.972	22.846	23.72	3.826	-3.826	0.783	-0.783

8	20.974	21.798	22.622	3.779	-3.779	0.777	-0.777
9	20.026	20.802	21.579	3.732	-3.732	0.771	-0.771
10	19.124	19.856	20.587	3.685	-3.685	0.765	-0.765
11	18.265	18.955	19.645	3.639	-3.639	0.759	-0.759
12	17.449	18.099	18.75	3.593	-3.593	0.753	-0.753
13	16.672	17.285	17.898	3.547	-3.547	0.746	-0.746
14	15.932	16.51	17.088	3.501	-3.501	0.739	-0.739
15	15.228	15.773	16.318	3.455	-3.455	0.732	-0.732
16	14.557	15.071	15.585	3.41	-3.41	0.725	-0.725
17	13.918	14.403	14.888	3.364	-3.364	0.717	-0.717
18	13.31	13.767	14.224	3.319	-3.319	0.709	-0.709
19	12.731	13.162	13.593	3.274	-3.274	0.7	-0.7
20	12.179	12.585	12.992	3.23	-3.23	0.69	-0.69
21	11.653	12.036	12.42	3.185	-3.185	0.678	-0.678
22	11.152	11.513	11.875	3.14	-3.14	0.661	-0.661
23	10.674	11.015	11.356	3.096	-3.096	0.636	-0.636
24	10.218	10.54	10.862	3.052	-3.052	0.577	-0.577
25	9.7	10	10.3	3	-3	0.571	-0.571
26	9.363	9.656	9.949	3.034	-3.034	0.871	-0.871
27	8.961	9.245	9.53	3.078	-3.078	0.79	-0.79
28	8.577	8.853	9.13	3.121	-3.121	0.776	-0.776
29	8.211	8.479	8.748	3.164	-3.164	0.778	-0.778
30	7.862	8.123	8.384	3.207	-3.207	0.784	-0.784
31	7.53	7.783	8.036	3.25	-3.25	0.794	-0.794
32	7.213	7.459	7.705	3.293	-3.293	0.804	-0.804
33	6.911	7.149	7.388	3.335	-3.335	0.816	-0.816
34	6.623	6.854	7.086	3.377	-3.377	0.829	-0.829
35	6.348	6.573	6.797	3.419	-3.419	0.842	-0.842
36	6.086	6.304	6.522	3.461	-3.461	0.855	-0.855
37	5.835	6.047	6.259	3.502	-3.502	0.869	-0.869
38	5.596	5.802	6.008	3.544	-3.544	0.883	-0.883
39	5.368	5.568	5.768	3.585	-3.585	0.897	-0.897
40	5.151	5.345	5.538	3.626	-3.626	0.912	-0.912
41	4.943	5.131	5.319	3.667	-3.667	0.926	-0.926

42	4.745	4.927	5.11	3.707	-3.707	0.941	-0.941
43	4.555	4.733	4.91	3.748	-3.748	0.956	-0.956
44	4.374	4.546	4.719	3.788	-3.788	0.971	-0.971
45	4.201	4.368	4.536	3.828	-3.828	0.986	-0.986
46	4.036	4.198	4.361	3.867	-3.867	1.001	-1.001
47	3.878	4.036	4.194	3.907	-3.907	1.017	-1.017
48	3.727	3.88	4.034	3.946	-3.946	1.033	-1.033
49	3.583	3.732	3.88	3.985	-3.985	1.048	-1.048
50	3.445	3.59	3.734	4.024	-4.024	1.064	-1.064
51	3.313	3.453	3.594	4.063	-4.063	1.08	-1.08
52	3.187	3.323	3.46	4.101	-4.101	1.096	-1.096
53	3.066	3.199	3.331	4.139	-4.139	1.112	-1.112
54	2.951	3.079	3.208	4.177	-4.177	1.128	-1.128
55	2.84	2.965	3.09	4.215	-4.215	1.145	-1.145
56	2.734	2.856	2.977	4.253	-4.253	1.161	-1.161
57	2.633	2.751	2.869	4.29	-4.29	1.178	-1.178
58	2.536	2.651	2.766	4.327	-4.327	1.194	-1.194
59	2.443	2.555	2.666	4.364	-4.364	1.211	-1.211
60	2.354	2.463	2.571	4.401	-4.401	1.228	-1.228
61	2.269	2.375	2.48	4.437	-4.437	1.245	-1.245
62	2.187	2.29	2.392	4.474	-4.474	1.262	-1.262
63	2.109	2.209	2.308	4.51	-4.51	1.279	-1.279
64	2.034	2.131	2.228	4.546	-4.546	1.297	-1.297
65	1.962	2.056	2.151	4.581	-4.581	1.314	-1.314
66	1.893	1.985	2.077	4.617	-4.617	1.331	-1.331
67	1.827	1.916	2.005	4.652	-4.652	1.349	-1.349
68	1.763	1.85	1.937	4.687	-4.687	1.367	-1.367
69	1.703	1.787	1.871	4.722	-4.722	1.384	-1.384
70	1.644	1.726	1.808	4.756	-4.756	1.402	-1.402
71	1.588	1.668	1.748	4.791	-4.791	1.42	-1.42
72	1.534	1.612	1.69	4.825	-4.825	1.438	-1.438
73	1.482	1.558	1.634	4.859	-4.859	1.456	-1.456
74	1.432	1.506	1.58	4.893	-4.893	1.475	-1.475
75	1.385	1.456	1.528	4.927	-4.927	1.493	-1.493

76	1.339	1.408	1.478	4.96	-4.96	1.511	-1.511
77	1.294	1.362	1.43	4.993	-4.993	1.53	-1.53
78	1.252	1.318	1.384	5.026	-5.026	1.548	-1.548
79	1.211	1.276	1.34	5.059	-5.059	1.567	-1.567
80	1.172	1.235	1.298	5.092	-5.092	1.586	-1.586
81	1.134	1.195	1.256	5.124	-5.124	1.605	-1.605
82	1.098	1.157	1.217	5.157	-5.157	1.623	-1.623
83	1.062	1.121	1.179	5.189	-5.189	1.642	-1.642
84	1.029	1.085	1.142	5.221	-5.221	1.662	-1.662
85	0.996	1.052	1.107	5.252	-5.252	1.681	-1.681
86	0.965	1.019	1.073	5.284	-5.284	1.7	-1.7
87	0.935	0.987	1.04	5.315	-5.315	1.719	-1.719
88	0.906	0.957	1.008	5.347	-5.347	1.739	-1.739
89	0.878	0.928	0.978	5.378	-5.378	1.758	-1.758
90	0.851	0.899	0.948	5.409	-5.409	1.778	-1.778
91	0.825	0.872	0.92	5.439	-5.439	1.798	-1.798
92	0.8	0.846	0.892	5.47	-5.47	1.817	-1.817
93	0.775	0.82	0.866	5.501	-5.501	1.837	-1.837
94	0.752	0.796	0.84	5.531	-5.531	1.857	-1.857
95	0.729	0.772	0.815	5.561	-5.561	1.877	-1.877
96	0.708	0.749	0.791	5.591	-5.591	1.897	-1.897
97	0.686	0.727	0.768	5.621	-5.621	1.917	-1.917
98	0.666	0.706	0.746	5.651	-5.651	1.937	-1.937
99	0.646	0.685	0.724	5.68	-5.68	1.958	-1.958
100	0.627	0.666	0.704	5.71	-5.71	1.978	-1.978
101	0.609	0.646	0.683	5.739	-5.739	1.999	-1.999
102	0.591	0.628	0.664	5.769	-5.769	2.019	-2.019
103	0.574	0.61	0.645	5.798	-5.798	2.04	-2.04
104	0.558	0.592	0.627	5.827	-5.827	2.06	-2.06
105	0.542	0.575	0.609	5.856	-5.856	2.081	-2.081
106	0.526	0.559	0.592	5.885	-5.885	2.102	-2.102
107	0.511	0.543	0.575	5.913	-5.913	2.123	-2.123
108	0.496	0.528	0.559	5.942	-5.942	2.144	-2.144
109	0.482	0.513	0.544	5.97	-5.97	2.165	-2.165

110	0.469	0.499	0.529	5.999	-5.999	2.186	-2.186
111	0.455	0.485	0.514	6.027	-6.027	2.207	-2.207
112	0.443	0.471	0.5	6.055	-6.055	2.228	-2.228
113	0.43	0.458	0.486	6.084	-6.084	2.249	-2.249
114	0.418	0.445	0.473	6.112	-6.112	2.271	-2.271
115	0.407	0.433	0.46	6.14	-6.14	2.292	-2.292
116	0.395	0.421	0.447	6.168	-6.168	2.313	-2.313
117	0.384	0.41	0.435	6.195	-6.195	2.335	-2.335
118	0.374	0.398	0.423	6.223	-6.223	2.357	-2.357
119	0.363	0.388	0.412	6.251	-6.251	2.378	-2.378
120	0.353	0.377	0.401	6.279	-6.279	2.4	-2.4
121	0.344	0.367	0.39	6.306	-6.306	2.422	-2.422
122	0.334	0.357	0.379	6.334	-6.334	2.443	-2.443
123	0.325	0.347	0.369	6.361	-6.361	2.465	-2.465
124	0.316	0.338	0.359	6.389	-6.389	2.487	-2.487
125	0.307	0.329	0.35	6.416	-6.416	2.509	-2.509



附表 II Attachment II

