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8F.No.33, Lane 155, Sec.3, Bei-Shen Rd.,
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Product/Process Change Notification

PCN#	Effective Date	Issue Date
2019-04-01C-02	2019/7/1	2019/4/1

PCN Classification	Product Category
Major	MOSFET

Subject
Process Optimization

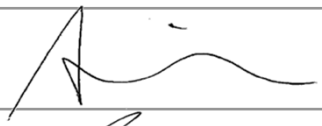
Affected Product(s)
SPR14P10-C

Description of Change(s)
In order to enhance the effectiveness of the product, we change the wafer size from 6-inch to 8-inch.

Content of Change(s)
Wafer size

Impact(s)
N/A

Attachment(s)
Reliability Test Report.

Approval		
Issue by	Alice Lai	e-mail: alice@secosgmbh.com
Development Engineer		Alice Lai
QA Manager		Peter Yang
General Manger		Mathew Liu

For more information, please contact us directly or visit our website http://www.secosgmbh.com

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Electrical Comparison Chart

Symbol	SPEC.	original 6' wafer (typ.)	new 8' wafer (typ.)	Unit
VDS	≧ -100V	-113.4	-111	V
IGSS	≦ -100nA	-0.7	-0.6	nA
IDSS	≦ -1uA	-10	-3.3	nA
VGS(th)	-1~-2.5V	-1.66	-1.75	V
Rdson(@ -10V)	≦90mΩ	68.3	67.5	mΩ
Rdson(@ -4.5V)	≦110mΩ	74.7	74.4	mΩ
VSD(@ -2A)	≦ -1.2V	-0.73	-0.74	V
Qg	typ. 29.2nC	49.68	48.54	nC
Qgs	typ. 4nC	11.4	9.57	nC
Qgd	typ. 8.5nC	11.64	10.32	nC
Td(on)	typ. 8.8ns	9.2	6.4	ns
Tr	typ. 17.2ns	19.6	19.2	ns
Td(off)	typ. 86.2ns	68.8	108.4	ns
Tf	typ. 63ns	39.6	49	ns
Ciss	typ. 1726pF	2998	2928	pF
Coss	typ. 104pF	123	120	pF
Crss	typ. 71pF	73	73	pF

SeCoS Corporation

Reliability Testing Summary Report

Date: 2019/03/28 Document No.: SM19 -03-14P10

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	SPR14P10-C	150 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	SPR14P10-C	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	SPR14P10-C	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	SPR14P10-C	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	SPR14P10-C	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	SPR14P10-C	85 ± 2℃, RH=85±5%, 80%VR, 1000 hrs		77	0	0	ACC
Solderability	SPR14P10-C	245 ± 5℃, 5Sec the inspected area of each lead must have 95% solder coverage minimum		10	0	0	ACC

Judgment:

■ **qualified** □ **unqualified**

Testing Start Date: 2019.02.01 Testing End Date: 2019.03.28

Tester: Leo Hsia Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 25℃
Test Date: 2019.02.01
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-110.9V	-1.909nA	65.4mΩ
2	-110.0V	-5.337nA	65.4mΩ
3	-111.4V	-4.880nA	64.9mΩ
4	-112.2V	-2.789nA	67.7mΩ
5	-112.2V	-5.451nA	68.3mΩ
6	-111.8V	-5.037nA	67.2mΩ
7	-112.2V	-3.359nA	65.7mΩ
8	-109.9V	-2.687nA	68.3mΩ
9	-111.2V	-3.125nA	67.4mΩ
10	-111.4V	-2.209nA	68.2mΩ
11	-110.8V	-2.176nA	67.0mΩ
12	-109.9V	-4.787nA	65.9mΩ
13	-110.3V	-5.337nA	65.2mΩ
14	-112.1V	-5.510nA	68.2mΩ
15	-111.7V	-2.336nA	65.6mΩ
16	-110.3V	-5.490nA	68.5mΩ
17	-111.1V	-2.567nA	64.9mΩ
18	-110.4V	-5.445nA	67.2mΩ
19	-111.2V	-3.677nA	68.7mΩ
20	-109.9V	-5.113nA	68.0mΩ
21	-110.2V	-3.370nA	66.0mΩ
22	-110.3V	-2.141nA	67.2mΩ
23	-111.3V	-5.680nA	65.1mΩ
24	-112.3V	-2.600nA	65.5mΩ
25	-110.3V	-3.717nA	64.9mΩ
26	-110.3V	-5.038nA	68.3mΩ
27	-110.4V	-4.496nA	65.2mΩ
28	-111.9V	-3.679nA	65.5mΩ
29	-112.1V	-4.530nA	64.8mΩ
30	-111.3V	-4.119nA	66.6mΩ

SeCoS Corporation

Electrical Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 25℃
Test Date: 2019.02.01
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
31	-111.3V	-3.171nA	67.2mΩ
32	-109.7V	-5.173nA	67.3mΩ
33	-111.6V	-2.806nA	65.2mΩ
34	-112.4V	-3.127nA	65.0mΩ
35	-111.3V	-4.475nA	65.5mΩ
36	-110.7V	-3.032nA	66.4mΩ
37	-110.2V	-2.584nA	64.9mΩ
38	-111.9V	-2.659nA	68.8mΩ
39	-111.9V	-2.091nA	66.6mΩ
40	-111.7V	-4.661nA	68.8mΩ
41	-111.5V	-4.787nA	65.2mΩ
42	-110.6V	-2.419nA	64.9mΩ
43	-110.7V	-2.616nA	67.2mΩ
44	-112.2V	-2.116nA	67.6mΩ
45	-110.7V	-4.743nA	67.2mΩ
46	-109.6V	-2.207nA	66.2mΩ
47	-109.5V	-3.355nA	67.5mΩ
48	-109.9V	-2.535nA	64.8mΩ
49	-109.6V	-5.373nA	67.6mΩ
50	-111.9V	-4.177nA	68.7mΩ
51	-111.7V	-2.938nA	67.8mΩ
52	-109.9V	-3.823nA	67.7mΩ
53	-111.2V	-5.461nA	67.1mΩ
54	-110.6V	-3.544nA	65.7mΩ
55	-110.0V	-2.336nA	66.7mΩ
56	-110.8V	-3.753nA	66.6mΩ
57	-111.4V	-3.375nA	68.1mΩ
58	-111.1V	-4.294nA	66.3mΩ
59	-111.2V	-4.053nA	68.2mΩ
60	-112.3V	-3.745nA	65.3mΩ

SeCoS Corporation

Electrical Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 25℃
Test Date: 2019.02.01
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
61	-110.7V	-4.511nA	67.5mΩ
62	-111.6V	-3.488nA	66.2mΩ
63	-110.0V	-2.301nA	68.8mΩ
64	-112.3V	-4.771nA	65.4mΩ
65	-110.2V	-2.147nA	66.1mΩ
66	-110.0V	-4.327nA	66.9mΩ
67	-110.3V	-3.684nA	65.3mΩ
68	-112.5V	-5.023nA	66.7mΩ
69	-109.9V	-2.369nA	65.6mΩ
70	-109.6V	-4.464nA	65.4mΩ
71	-112.2V	-2.606nA	67.0mΩ
72	-111.5V	-1.745nA	66.9mΩ
73	-110.7V	-5.296nA	65.6mΩ
74	-112.2V	-4.587nA	66.4mΩ
75	-110.7V	-2.815nA	65.2mΩ
76	-110.8V	-2.946nA	66.5mΩ
77	-111.7V	-3.517nA	66.2mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-112.2V	-4.362nA	65.6mΩ	-109.7V	-5.127nA	66.1mΩ
2	-110.0V	-4.286nA	66.8mΩ	-112.1V	-4.842nA	68.5mΩ
3	-110.3V	-4.485nA	65.8mΩ	-110.7V	-4.398nA	66.2mΩ
4	-112.4V	-4.713nA	68.5mΩ	-111.8V	-3.474nA	68.3mΩ
5	-110.8V	-3.156nA	64.8mΩ	-111.8V	-2.573nA	68.3mΩ
6	-112.4V	-2.188nA	67.7mΩ	-110.1V	-4.995nA	67.7mΩ
7	-111.3V	-3.915nA	66.9mΩ	-110.8V	-2.085nA	66.3mΩ
8	-110.9V	-2.811nA	68.1mΩ	-109.7V	-5.661nA	66.5mΩ
9	-111.8V	-4.485nA	65.9mΩ	-111.3V	-3.418nA	64.9mΩ
10	-112.4V	-4.142nA	67.2mΩ	-110.1V	-5.011nA	68.4mΩ
11	-110.6V	-3.819nA	65.8mΩ	-110.1V	-4.710nA	67.2mΩ
12	-110.7V	-2.398nA	67.6mΩ	-110.6V	-2.517nA	68.0mΩ
13	-112.5V	-3.978nA	64.9mΩ	-111.8V	-4.699nA	68.0mΩ
14	-111.4V	-1.767nA	65.7mΩ	-110.2V	-2.820nA	66.2mΩ
15	-112.5V	-2.115nA	68.1mΩ	-110.0V	-3.616nA	66.0mΩ
16	-112.1V	-5.431nA	65.9mΩ	-110.9V	-3.192nA	67.6mΩ
17	-112.3V	-3.861nA	68.3mΩ	-111.5V	-2.247nA	65.0mΩ
18	-112.3V	-5.201nA	64.7mΩ	-110.8V	-2.492nA	65.4mΩ
19	-112.3V	-4.305nA	68.8mΩ	-110.1V	-2.733nA	68.7mΩ
20	-110.4V	-1.771nA	66.4mΩ	-109.8V	-2.108nA	68.7mΩ
21	-111.8V	-2.931nA	66.7mΩ	-110.4V	-4.905nA	65.2mΩ
22	-112.3V	-5.594nA	66.7mΩ	-111.8V	-3.583nA	66.4mΩ
23	-111.7V	-2.200nA	65.1mΩ	-112.0V	-5.226nA	67.9mΩ
24	-110.1V	-5.357nA	67.4mΩ	-110.8V	-3.024nA	66.9mΩ
25	-109.6V	-3.802nA	67.8mΩ	-112.2V	-4.161nA	65.2mΩ
26	-109.9V	-1.841nA	65.3mΩ	-109.6V	-3.500nA	65.6mΩ
27	-110.1V	-2.828nA	67.2mΩ	-112.5V	-2.577nA	65.6mΩ
28	-112.1V	-2.661nA	66.8mΩ	-110.8V	-3.114nA	67.2mΩ
29	-109.8V	-4.083nA	68.2mΩ	-109.9V	-4.308nA	67.6mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-109.6V	-2.475nA	67.0mΩ	-110.9V	-4.518nA	68.7mΩ
31	-110.4V	-4.328nA	66.8mΩ	-110.4V	-5.152nA	68.2mΩ
32	-110.7V	-2.992nA	68.6mΩ	-112.5V	-5.080nA	66.9mΩ
33	-111.1V	-5.283nA	68.7mΩ	-110.9V	-4.938nA	67.7mΩ
34	-109.7V	-5.653nA	64.9mΩ	-112.2V	-2.605nA	65.8mΩ
35	-110.8V	-1.981nA	68.6mΩ	-109.8V	-2.969nA	65.5mΩ
36	-111.2V	-4.929nA	65.4mΩ	-112.4V	-5.646nA	65.1mΩ
37	-110.0V	-4.926nA	65.7mΩ	-111.2V	-2.065nA	66.3mΩ
38	-109.9V	-2.211nA	66.0mΩ	-112.3V	-3.923nA	65.0mΩ
39	-110.4V	-5.161nA	65.1mΩ	-111.9V	-1.966nA	65.6mΩ
40	-110.6V	-4.163nA	66.8mΩ	-111.5V	-4.207nA	66.4mΩ
41	-110.3V	-2.836nA	66.1mΩ	-111.1V	-5.146nA	68.3mΩ
42	-110.8V	-4.828nA	68.6mΩ	-109.6V	-2.849nA	67.4mΩ
43	-109.6V	-4.059nA	66.6mΩ	-112.4V	-3.609nA	67.2mΩ
44	-111.0V	-5.468nA	65.9mΩ	-109.9V	-3.930nA	66.2mΩ
45	-110.0V	-3.957nA	65.4mΩ	-110.9V	-4.413nA	68.7mΩ
46	-111.9V	-5.051nA	64.8mΩ	-111.9V	-5.079nA	66.2mΩ
47	-109.7V	-1.930nA	68.6mΩ	-111.7V	-5.136nA	66.8mΩ
48	-111.1V	-4.259nA	64.7mΩ	-110.8V	-4.996nA	66.8mΩ
49	-112.0V	-4.305nA	66.6mΩ	-111.9V	-3.662nA	66.2mΩ
50	-110.7V	-3.417nA	66.4mΩ	-110.6V	-3.201nA	68.2mΩ
51	-112.0V	-3.322nA	65.5mΩ	-109.8V	-5.446nA	68.5mΩ
52	-111.9V	-3.470nA	68.4mΩ	-110.9V	-3.198nA	66.8mΩ
53	-109.8V	-4.572nA	67.6mΩ	-112.3V	-5.501nA	67.8mΩ
54	-109.6V	-4.514nA	67.8mΩ	-111.7V	-3.049nA	65.2mΩ
55	-112.5V	-2.146nA	66.6mΩ	-109.7V	-1.811nA	67.2mΩ
56	-111.5V	-5.379nA	68.1mΩ	-111.9V	-3.248nA	68.8mΩ
57	-110.4V	-4.910nA	67.4mΩ	-109.5V	-2.063nA	67.9mΩ
58	-110.2V	-1.725nA	66.3mΩ	-111.1V	-3.183nA	65.3mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-109.5V	-2.078nA	68.6mΩ	-112.4V	-4.490nA	67.5mΩ
60	-111.7V	-1.824nA	65.1mΩ	-109.6V	-1.994nA	67.9mΩ
61	-110.2V	-2.205nA	66.5mΩ	-112.0V	-2.525nA	65.9mΩ
62	-110.3V	-3.617nA	67.6mΩ	-111.8V	-2.543nA	65.7mΩ
63	-111.8V	-4.150nA	65.6mΩ	-109.8V	-4.660nA	68.0mΩ
64	-112.1V	-2.243nA	67.3mΩ	-111.2V	-5.071nA	66.6mΩ
65	-111.1V	-3.780nA	67.8mΩ	-109.8V	-2.207nA	66.5mΩ
66	-110.0V	-4.851nA	65.7mΩ	-112.1V	-2.580nA	66.1mΩ
67	-110.2V	-2.112nA	66.3mΩ	-110.4V	-2.444nA	66.4mΩ
68	-111.1V	-2.148nA	68.1mΩ	-111.0V	-3.468nA	65.9mΩ
69	-111.6V	-2.770nA	65.3mΩ	-110.6V	-5.608nA	67.3mΩ
70	-110.2V	-3.592nA	68.0mΩ	-110.5V	-2.460nA	66.1mΩ
71	-109.9V	-3.520nA	65.5mΩ	-110.0V	-4.743nA	67.6mΩ
72	-111.0V	-2.904nA	67.1mΩ	-112.4V	-4.309nA	65.7mΩ
73	-110.7V	-4.875nA	66.6mΩ	-110.9V	-4.514nA	66.8mΩ
74	-111.9V	-4.121nA	68.6mΩ	-111.6V	-4.086nA	68.0mΩ
75	-110.0V	-3.764nA	68.7mΩ	-110.6V	-5.159nA	67.8mΩ
76	-112.1V	-3.252nA	65.4mΩ	-110.6V	-4.879nA	66.5mΩ
77	-110.2V	-3.357nA	65.1mΩ	-110.0V	-3.100nA	65.3mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150℃, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-111.3V	-2.350nA	66.4mΩ	-110.9V	-3.250nA	65.1mΩ
2	-110.6V	-2.275nA	67.1mΩ	-112.4V	-5.330nA	68.0mΩ
3	-109.6V	-4.426nA	66.1mΩ	-110.8V	-2.367nA	65.1mΩ
4	-109.8V	-2.555nA	68.7mΩ	-109.8V	-5.382nA	66.7mΩ
5	-111.1V	-5.283nA	65.0mΩ	-110.4V	-2.949nA	67.7mΩ
6	-112.2V	-2.125nA	66.8mΩ	-110.1V	-3.113nA	67.9mΩ
7	-110.8V	-3.023nA	66.3mΩ	-110.6V	-5.017nA	66.4mΩ
8	-110.2V	-2.638nA	68.0mΩ	-111.6V	-3.512nA	65.9mΩ
9	-110.8V	-5.082nA	65.2mΩ	-109.8V	-2.824nA	66.0mΩ
10	-112.1V	-4.464nA	65.5mΩ	-112.1V	-2.282nA	67.4mΩ
11	-111.4V	-2.032nA	65.8mΩ	-109.6V	-3.790nA	66.7mΩ
12	-112.4V	-2.799nA	65.7mΩ	-111.7V	-2.319nA	66.9mΩ
13	-110.3V	-5.044nA	66.0mΩ	-112.2V	-5.375nA	68.3mΩ
14	-110.1V	-4.487nA	65.7mΩ	-111.8V	-3.048nA	65.6mΩ
15	-111.0V	-4.760nA	65.7mΩ	-110.7V	-2.155nA	64.8mΩ
16	-111.4V	-3.577nA	68.4mΩ	-110.0V	-2.368nA	65.1mΩ
17	-111.4V	-4.140nA	67.1mΩ	-111.3V	-4.531nA	68.5mΩ
18	-110.1V	-2.418nA	67.5mΩ	-111.4V	-5.184nA	66.6mΩ
19	-110.5V	-4.642nA	64.9mΩ	-110.6V	-4.852nA	67.0mΩ
20	-110.1V	-4.242nA	65.8mΩ	-111.0V	-4.844nA	65.2mΩ
21	-111.4V	-4.431nA	68.7mΩ	-111.1V	-2.238nA	67.0mΩ
22	-110.3V	-5.448nA	67.9mΩ	-110.0V	-2.676nA	65.0mΩ
23	-112.3V	-4.699nA	67.4mΩ	-109.8V	-4.669nA	67.5mΩ
24	-109.7V	-2.590nA	67.2mΩ	-110.7V	-5.131nA	66.7mΩ
25	-111.6V	-2.639nA	67.8mΩ	-111.3V	-4.476nA	67.4mΩ
26	-112.0V	-3.000nA	66.8mΩ	-111.1V	-4.403nA	66.6mΩ
27	-112.4V	-3.242nA	67.6mΩ	-110.7V	-1.925nA	66.0mΩ
28	-111.4V	-5.284nA	66.7mΩ	-110.3V	-5.104nA	68.0mΩ
29	-111.0V	-2.519nA	65.2mΩ	-110.2V	-2.181nA	67.2mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150℃, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-111.6V	-4.205nA	65.0mΩ	-111.8V	-4.240nA	68.5mΩ
31	-109.6V	-3.418nA	68.5mΩ	-109.8V	-2.964nA	68.8mΩ
32	-111.8V	-4.963nA	68.6mΩ	-110.5V	-3.055nA	67.0mΩ
33	-112.4V	-5.255nA	67.2mΩ	-110.2V	-4.731nA	65.4mΩ
34	-112.2V	-5.443nA	68.2mΩ	-111.2V	-2.374nA	65.0mΩ
35	-112.1V	-5.531nA	68.1mΩ	-111.5V	-3.871nA	67.7mΩ
36	-109.7V	-5.242nA	64.9mΩ	-111.2V	-5.125nA	68.6mΩ
37	-110.9V	-5.562nA	68.8mΩ	-110.7V	-2.190nA	67.0mΩ
38	-112.0V	-3.087nA	66.5mΩ	-110.0V	-5.269nA	65.6mΩ
39	-111.9V	-1.799nA	65.6mΩ	-110.8V	-2.975nA	64.9mΩ
40	-111.9V	-3.707nA	66.7mΩ	-110.4V	-1.911nA	66.8mΩ
41	-112.0V	-5.510nA	65.2mΩ	-111.7V	-4.880nA	65.1mΩ
42	-112.5V	-2.580nA	66.7mΩ	-111.7V	-2.961nA	67.3mΩ
43	-111.1V	-3.145nA	66.6mΩ	-112.1V	-1.853nA	67.2mΩ
44	-110.6V	-2.543nA	65.6mΩ	-112.1V	-1.727nA	68.1mΩ
45	-110.3V	-1.926nA	67.7mΩ	-111.3V	-3.022nA	67.5mΩ
46	-112.0V	-2.730nA	65.5mΩ	-112.0V	-4.484nA	65.1mΩ
47	-111.1V	-3.363nA	66.2mΩ	-110.2V	-4.321nA	67.1mΩ
48	-111.0V	-3.557nA	68.5mΩ	-112.0V	-1.924nA	68.4mΩ
49	-111.0V	-5.472nA	68.6mΩ	-110.5V	-3.871nA	66.8mΩ
50	-111.5V	-4.767nA	66.0mΩ	-110.3V	-5.403nA	67.8mΩ
51	-109.7V	-2.273nA	67.3mΩ	-109.8V	-2.961nA	64.8mΩ
52	-110.3V	-5.043nA	66.8mΩ	-112.1V	-2.250nA	68.3mΩ
53	-111.7V	-2.761nA	68.4mΩ	-111.1V	-5.221nA	65.7mΩ
54	-112.0V	-4.555nA	68.4mΩ	-111.8V	-2.931nA	65.9mΩ
55	-111.0V	-3.222nA	67.7mΩ	-111.0V	-1.927nA	66.9mΩ
56	-112.1V	-4.134nA	67.5mΩ	-110.6V	-2.034nA	66.2mΩ
57	-111.5V	-5.044nA	64.9mΩ	-111.1V	-5.177nA	68.4mΩ
58	-110.7V	-2.626nA	68.4mΩ	-111.0V	-3.703nA	67.9mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 150℃, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-111.7V	-3.452nA	67.8mΩ	-110.4V	-3.544nA	67.4mΩ
60	-111.5V	-3.645nA	68.1mΩ	-109.9V	-1.942nA	65.5mΩ
61	-111.1V	-3.218nA	67.8mΩ	-110.9V	-1.829nA	67.2mΩ
62	-111.5V	-3.586nA	68.2mΩ	-112.3V	-3.534nA	66.3mΩ
63	-111.2V	-2.853nA	67.7mΩ	-111.8V	-3.052nA	66.0mΩ
64	-112.2V	-3.865nA	67.5mΩ	-111.5V	-5.212nA	67.6mΩ
65	-111.0V	-3.915nA	66.1mΩ	-110.1V	-3.404nA	67.0mΩ
66	-110.2V	-3.080nA	67.2mΩ	-110.3V	-2.714nA	66.5mΩ
67	-112.0V	-5.270nA	66.6mΩ	-110.8V	-2.254nA	66.4mΩ
68	-110.2V	-2.425nA	65.0mΩ	-109.8V	-3.168nA	65.3mΩ
69	-110.0V	-3.237nA	68.1mΩ	-109.9V	-5.237nA	66.6mΩ
70	-110.9V	-4.684nA	67.6mΩ	-111.9V	-2.302nA	66.5mΩ
71	-109.7V	-1.741nA	68.1mΩ	-110.6V	-2.910nA	66.5mΩ
72	-109.9V	-4.899nA	65.9mΩ	-111.0V	-3.530nA	65.0mΩ
73	-110.3V	-4.321nA	66.7mΩ	-112.4V	-2.574nA	67.1mΩ
74	-111.9V	-4.716nA	66.6mΩ	-109.7V	-2.815nA	68.1mΩ
75	-111.6V	-3.410nA	66.1mΩ	-111.4V	-3.429nA	68.3mΩ
76	-111.5V	-5.390nA	65.5mΩ	-110.1V	-4.309nA	66.8mΩ
77	-110.7V	-3.716nA	65.6mΩ	-111.0V	-3.436nA	66.9mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2019.02.11 ~ 2019.02.19
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-112.1V	-5.561nA	67.5mΩ	-109.8V	-4.098nA	67.9mΩ
2	-112.3V	-5.239nA	68.0mΩ	-111.5V	-3.926nA	65.6mΩ
3	-112.4V	-5.464nA	65.7mΩ	-110.5V	-2.237nA	68.0mΩ
4	-112.3V	-2.915nA	67.0mΩ	-109.8V	-4.340nA	67.4mΩ
5	-112.2V	-2.424nA	65.5mΩ	-109.6V	-2.800nA	65.2mΩ
6	-110.4V	-4.305nA	65.8mΩ	-111.9V	-5.088nA	67.5mΩ
7	-110.9V	-4.608nA	68.6mΩ	-112.0V	-2.211nA	67.3mΩ
8	-111.2V	-3.625nA	65.5mΩ	-110.8V	-4.764nA	67.6mΩ
9	-110.4V	-4.652nA	66.5mΩ	-112.0V	-1.830nA	66.7mΩ
10	-110.2V	-4.632nA	65.5mΩ	-109.9V	-3.344nA	68.0mΩ
11	-110.8V	-4.617nA	67.2mΩ	-110.9V	-3.966nA	67.6mΩ
12	-109.9V	-3.071nA	66.6mΩ	-110.7V	-3.715nA	65.0mΩ
13	-111.3V	-3.678nA	66.9mΩ	-112.0V	-2.291nA	68.8mΩ
14	-111.2V	-2.345nA	65.6mΩ	-111.1V	-3.686nA	67.3mΩ
15	-111.7V	-5.061nA	65.1mΩ	-112.3V	-4.728nA	66.1mΩ
16	-111.4V	-3.886nA	65.6mΩ	-111.8V	-2.516nA	68.7mΩ
17	-111.5V	-2.635nA	68.3mΩ	-110.1V	-2.635nA	65.3mΩ
18	-110.5V	-3.535nA	68.3mΩ	-111.2V	-5.237nA	66.3mΩ
19	-109.6V	-2.585nA	66.2mΩ	-110.2V	-2.100nA	66.0mΩ
20	-112.0V	-1.821nA	67.0mΩ	-112.3V	-3.875nA	67.7mΩ
21	-111.7V	-4.926nA	66.7mΩ	-110.4V	-4.483nA	66.1mΩ
22	-110.1V	-4.840nA	67.6mΩ	-112.3V	-4.364nA	67.3mΩ
23	-110.5V	-5.185nA	68.6mΩ	-110.4V	-2.055nA	65.4mΩ
24	-112.4V	-3.456nA	67.8mΩ	-110.4V	-2.464nA	65.0mΩ
25	-110.8V	-4.623nA	67.4mΩ	-111.8V	-3.480nA	68.7mΩ
26	-111.6V	-4.892nA	66.6mΩ	-111.7V	-4.313nA	67.0mΩ
27	-112.0V	-3.306nA	67.6mΩ	-110.3V	-4.112nA	67.7mΩ
28	-111.4V	-4.623nA	64.9mΩ	-110.6V	-3.354nA	68.5mΩ
29	-110.7V	-2.580nA	67.7mΩ	-110.7V	-2.485nA	68.1mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2019.02.11 ~ 2019.02.19
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-109.8V	-2.800nA	67.5mΩ	-110.3V	-2.335nA	64.8mΩ
31	-110.5V	-2.527nA	67.6mΩ	-110.1V	-3.072nA	68.8mΩ
32	-110.3V	-2.863nA	65.1mΩ	-111.7V	-4.639nA	65.9mΩ
33	-110.8V	-4.747nA	68.0mΩ	-110.8V	-5.285nA	64.9mΩ
34	-112.1V	-3.732nA	65.9mΩ	-112.0V	-5.031nA	66.5mΩ
35	-109.7V	-1.886nA	65.2mΩ	-112.4V	-2.550nA	65.9mΩ
36	-111.9V	-4.745nA	68.5mΩ	-110.3V	-2.753nA	66.9mΩ
37	-110.1V	-2.998nA	67.4mΩ	-112.3V	-4.888nA	66.0mΩ
38	-112.0V	-2.863nA	65.5mΩ	-110.3V	-3.670nA	68.7mΩ
39	-111.4V	-5.260nA	68.0mΩ	-109.9V	-2.307nA	67.4mΩ
40	-111.7V	-5.038nA	68.0mΩ	-111.2V	-4.850nA	67.0mΩ
41	-111.5V	-3.236nA	68.2mΩ	-112.5V	-5.522nA	66.0mΩ
42	-111.1V	-3.589nA	68.4mΩ	-111.2V	-1.732nA	66.5mΩ
43	-111.7V	-2.428nA	66.0mΩ	-110.6V	-1.897nA	66.9mΩ
44	-111.9V	-3.851nA	66.9mΩ	-110.9V	-4.018nA	66.3mΩ
45	-112.2V	-5.515nA	67.9mΩ	-109.6V	-4.101nA	68.2mΩ
46	-111.4V	-4.210nA	65.4mΩ	-109.7V	-4.290nA	68.2mΩ
47	-110.5V	-2.036nA	66.7mΩ	-111.2V	-2.954nA	65.5mΩ
48	-111.2V	-5.341nA	65.2mΩ	-109.9V	-3.523nA	66.4mΩ
49	-111.5V	-4.077nA	65.9mΩ	-110.5V	-2.740nA	65.8mΩ
50	-109.7V	-2.467nA	66.2mΩ	-112.1V	-4.945nA	68.3mΩ
51	-109.6V	-4.276nA	66.0mΩ	-112.3V	-5.357nA	67.8mΩ
52	-112.5V	-2.031nA	65.5mΩ	-111.6V	-2.933nA	68.4mΩ
53	-110.6V	-2.762nA	67.6mΩ	-112.1V	-3.315nA	66.9mΩ
54	-111.2V	-4.121nA	68.4mΩ	-110.1V	-4.528nA	66.0mΩ
55	-110.4V	-1.751nA	67.4mΩ	-109.9V	-1.832nA	64.9mΩ
56	-111.6V	-5.512nA	66.9mΩ	-111.7V	-3.455nA	67.5mΩ
57	-110.8V	-1.833nA	68.2mΩ	-111.7V	-4.612nA	68.1mΩ
58	-110.0V	-3.697nA	65.2mΩ	-111.5V	-4.763nA	68.5mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2019.02.11 ~ 2019.02.19
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-110.4V	-2.363nA	65.6mΩ	-110.8V	-5.375nA	64.9mΩ
60	-112.2V	-2.114nA	66.4mΩ	-112.0V	-3.521nA	68.1mΩ
61	-110.5V	-4.297nA	65.7mΩ	-112.1V	-3.728nA	68.3mΩ
62	-110.8V	-3.534nA	67.7mΩ	-110.9V	-3.125nA	65.1mΩ
63	-110.4V	-3.183nA	68.2mΩ	-112.1V	-5.096nA	67.1mΩ
64	-110.5V	-2.731nA	66.4mΩ	-109.8V	-1.864nA	66.3mΩ
65	-109.5V	-4.782nA	67.5mΩ	-110.3V	-3.734nA	68.6mΩ
66	-111.0V	-2.420nA	65.0mΩ	-110.7V	-4.320nA	67.0mΩ
67	-110.1V	-1.824nA	65.3mΩ	-109.9V	-3.439nA	68.1mΩ
68	-109.6V	-4.352nA	66.1mΩ	-111.5V	-3.718nA	68.8mΩ
69	-109.8V	-4.007nA	66.9mΩ	-111.7V	-4.485nA	67.8mΩ
70	-110.0V	-4.515nA	66.9mΩ	-112.0V	-5.530nA	65.1mΩ
71	-111.1V	-3.579nA	67.8mΩ	-112.5V	-2.878nA	65.4mΩ
72	-112.2V	-4.017nA	68.4mΩ	-109.7V	-3.607nA	68.0mΩ
73	-111.7V	-4.747nA	65.3mΩ	-110.0V	-1.827nA	68.4mΩ
74	-110.1V	-2.791nA	65.6mΩ	-110.1V	-3.152nA	67.5mΩ
75	-109.7V	-3.847nA	68.5mΩ	-110.9V	-4.712nA	68.3mΩ
76	-112.3V	-3.482nA	66.2mΩ	-112.1V	-1.985nA	66.2mΩ
77	-112.1V	-2.246nA	65.4mΩ	-111.5V	-4.197nA	64.8mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2019.02.01 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-111.0V	-5.631nA	66.5mΩ	-111.6V	-2.981nA	66.1mΩ
2	-112.4V	-1.967nA	65.8mΩ	-110.1V	-4.571nA	68.4mΩ
3	-109.9V	-4.650nA	67.6mΩ	-111.0V	-3.852nA	66.2mΩ
4	-110.3V	-5.407nA	66.7mΩ	-110.6V	-4.045nA	65.7mΩ
5	-110.4V	-2.963nA	67.8mΩ	-110.3V	-3.486nA	65.0mΩ
6	-111.4V	-4.831nA	67.4mΩ	-110.5V	-2.074nA	68.1mΩ
7	-111.4V	-2.687nA	65.1mΩ	-109.9V	-1.881nA	65.4mΩ
8	-111.6V	-4.615nA	67.6mΩ	-111.7V	-3.498nA	66.4mΩ
9	-109.8V	-3.308nA	68.2mΩ	-110.3V	-3.716nA	65.0mΩ
10	-111.8V	-4.755nA	67.9mΩ	-111.7V	-2.384nA	68.2mΩ
11	-110.7V	-2.042nA	67.8mΩ	-111.4V	-4.728nA	67.1mΩ
12	-110.9V	-4.251nA	65.0mΩ	-112.1V	-2.945nA	68.6mΩ
13	-110.6V	-3.910nA	66.2mΩ	-109.6V	-1.826nA	66.3mΩ
14	-110.9V	-5.309nA	65.2mΩ	-111.6V	-5.327nA	67.7mΩ
15	-112.2V	-1.927nA	67.5mΩ	-111.2V	-4.718nA	67.6mΩ
16	-111.7V	-2.705nA	68.1mΩ	-111.4V	-1.907nA	67.1mΩ
17	-110.3V	-4.328nA	66.1mΩ	-111.0V	-4.735nA	68.0mΩ
18	-112.1V	-3.831nA	67.4mΩ	-109.6V	-5.623nA	66.1mΩ
19	-110.2V	-2.911nA	66.8mΩ	-111.8V	-2.952nA	67.1mΩ
20	-110.7V	-3.005nA	68.5mΩ	-110.3V	-2.625nA	65.0mΩ
21	-110.9V	-3.843nA	67.7mΩ	-110.9V	-4.772nA	66.3mΩ
22	-109.8V	-5.604nA	65.4mΩ	-109.8V	-4.479nA	65.4mΩ
23	-110.3V	-5.270nA	65.6mΩ	-110.2V	-4.244nA	66.5mΩ
24	-111.4V	-3.983nA	68.6mΩ	-111.7V	-1.964nA	67.4mΩ
25	-111.3V	-4.941nA	68.4mΩ	-110.9V	-2.552nA	67.2mΩ
26	-111.4V	-5.128nA	66.8mΩ	-112.4V	-1.963nA	67.0mΩ
27	-111.8V	-2.206nA	65.6mΩ	-111.7V	-5.024nA	67.6mΩ
28	-110.7V	-2.396nA	65.7mΩ	-110.6V	-1.749nA	68.7mΩ
29	-110.7V	-5.297nA	64.8mΩ	-110.0V	-3.761nA	66.1mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2019.02.01 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-111.3V	-2.247nA	67.8mΩ	-112.1V	-3.436nA	67.3mΩ
31	-112.2V	-2.893nA	67.2mΩ	-111.5V	-4.864nA	68.3mΩ
32	-110.8V	-1.830nA	67.4mΩ	-110.1V	-3.691nA	67.5mΩ
33	-111.8V	-4.335nA	66.0mΩ	-110.9V	-4.767nA	67.7mΩ
34	-112.1V	-2.735nA	65.8mΩ	-111.2V	-3.735nA	68.7mΩ
35	-110.2V	-2.014nA	66.6mΩ	-111.8V	-3.491nA	67.4mΩ
36	-110.0V	-3.447nA	66.7mΩ	-109.8V	-1.789nA	67.7mΩ
37	-110.8V	-4.090nA	65.5mΩ	-110.0V	-4.722nA	65.0mΩ
38	-112.2V	-5.028nA	65.3mΩ	-112.2V	-4.940nA	66.1mΩ
39	-111.4V	-2.027nA	65.7mΩ	-112.5V	-2.708nA	67.5mΩ
40	-112.4V	-1.730nA	67.1mΩ	-112.3V	-4.128nA	67.8mΩ
41	-112.2V	-3.690nA	66.1mΩ	-110.6V	-3.009nA	67.3mΩ
42	-111.9V	-4.469nA	67.2mΩ	-111.4V	-2.743nA	67.5mΩ
43	-110.1V	-2.362nA	65.1mΩ	-110.4V	-5.279nA	65.2mΩ
44	-109.7V	-1.997nA	65.1mΩ	-111.0V	-2.748nA	66.0mΩ
45	-109.9V	-4.713nA	65.1mΩ	-111.6V	-3.658nA	67.4mΩ
46	-111.3V	-4.649nA	66.2mΩ	-111.7V	-2.123nA	66.4mΩ
47	-110.4V	-3.188nA	65.0mΩ	-109.7V	-2.193nA	68.4mΩ
48	-111.8V	-4.102nA	68.2mΩ	-110.3V	-3.104nA	67.3mΩ
49	-110.0V	-3.262nA	65.2mΩ	-111.0V	-2.171nA	68.0mΩ
50	-111.5V	-3.131nA	67.8mΩ	-112.2V	-1.904nA	68.4mΩ
51	-109.8V	-3.925nA	64.9mΩ	-110.3V	-3.289nA	66.9mΩ
52	-110.2V	-3.462nA	65.8mΩ	-111.1V	-4.981nA	66.9mΩ
53	-109.9V	-5.306nA	66.8mΩ	-110.1V	-1.933nA	65.3mΩ
54	-109.8V	-4.946nA	67.4mΩ	-111.9V	-4.548nA	66.5mΩ
55	-112.0V	-3.991nA	68.0mΩ	-111.1V	-5.588nA	67.0mΩ
56	-110.3V	-3.362nA	67.5mΩ	-109.7V	-2.721nA	68.4mΩ
57	-110.8V	-1.955nA	68.0mΩ	-111.3V	-5.216nA	66.8mΩ
58	-110.2V	-4.554nA	66.7mΩ	-110.2V	-3.976nA	67.4mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2019.02.01 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-112.1V	-4.202nA	65.8mΩ	-111.1V	-5.559nA	65.3mΩ
60	-111.9V	-3.351nA	65.3mΩ	-110.4V	-4.259nA	68.0mΩ
61	-111.0V	-4.397nA	67.1mΩ	-110.5V	-3.040nA	67.3mΩ
62	-111.5V	-2.730nA	68.4mΩ	-110.5V	-2.154nA	68.4mΩ
63	-112.5V	-4.682nA	66.9mΩ	-109.7V	-1.842nA	68.7mΩ
64	-110.5V	-3.940nA	67.8mΩ	-111.7V	-3.083nA	65.1mΩ
65	-110.3V	-2.037nA	68.2mΩ	-109.6V	-2.393nA	67.4mΩ
66	-109.6V	-3.471nA	66.1mΩ	-111.5V	-4.604nA	68.6mΩ
67	-110.0V	-4.379nA	66.3mΩ	-110.8V	-3.431nA	65.0mΩ
68	-111.7V	-2.048nA	65.4mΩ	-112.3V	-2.300nA	65.7mΩ
69	-111.9V	-3.186nA	65.9mΩ	-111.8V	-2.482nA	66.0mΩ
70	-110.1V	-3.371nA	67.1mΩ	-110.0V	-4.848nA	68.0mΩ
71	-112.2V	-1.973nA	64.8mΩ	-110.0V	-3.794nA	66.3mΩ
72	-111.7V	-2.707nA	67.6mΩ	-112.3V	-2.224nA	64.8mΩ
73	-110.1V	-2.024nA	65.2mΩ	-110.1V	-2.507nA	65.0mΩ
74	-110.1V	-4.665nA	66.6mΩ	-109.7V	-3.242nA	65.3mΩ
75	-110.6V	-3.945nA	67.3mΩ	-111.3V	-3.297nA	68.7mΩ
76	-111.5V	-2.065nA	68.2mΩ	-109.6V	-4.588nA	67.3mΩ
77	-112.5V	-3.656nA	66.1mΩ	-110.8V	-2.641nA	66.8mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-111.0V	-3.473nA	64.9mΩ	-111.4V	-1.739nA	64.8mΩ
2	-111.8V	-2.521nA	68.2mΩ	-111.8V	-4.151nA	65.6mΩ
3	-109.9V	-3.853nA	64.9mΩ	-109.8V	-1.808nA	65.6mΩ
4	-112.3V	-4.758nA	65.8mΩ	-110.8V	-5.642nA	66.7mΩ
5	-109.6V	-4.731nA	68.4mΩ	-111.0V	-3.842nA	67.0mΩ
6	-111.0V	-5.045nA	68.4mΩ	-111.8V	-3.244nA	68.3mΩ
7	-111.6V	-5.460nA	66.0mΩ	-109.7V	-2.223nA	66.9mΩ
8	-109.6V	-2.751nA	66.4mΩ	-109.6V	-5.474nA	67.5mΩ
9	-111.8V	-2.982nA	65.9mΩ	-111.0V	-4.382nA	64.9mΩ
10	-112.4V	-1.790nA	66.9mΩ	-110.7V	-4.982nA	66.2mΩ
11	-111.5V	-5.498nA	67.7mΩ	-110.1V	-3.158nA	67.0mΩ
12	-112.1V	-1.961nA	68.2mΩ	-111.3V	-4.285nA	65.1mΩ
13	-110.9V	-5.646nA	66.7mΩ	-111.8V	-3.008nA	67.4mΩ
14	-111.0V	-2.121nA	67.0mΩ	-111.9V	-4.497nA	68.4mΩ
15	-109.6V	-1.893nA	67.6mΩ	-111.2V	-2.239nA	65.2mΩ
16	-112.1V	-5.281nA	67.2mΩ	-111.5V	-4.164nA	65.6mΩ
17	-110.3V	-4.345nA	66.4mΩ	-112.3V	-2.660nA	65.2mΩ
18	-110.3V	-2.355nA	68.4mΩ	-111.2V	-1.871nA	68.2mΩ
19	-110.3V	-2.021nA	66.0mΩ	-110.6V	-2.388nA	68.3mΩ
20	-111.8V	-3.568nA	67.9mΩ	-111.0V	-3.480nA	67.9mΩ
21	-111.9V	-3.968nA	66.0mΩ	-112.1V	-2.636nA	68.6mΩ
22	-111.3V	-4.449nA	64.9mΩ	-109.9V	-2.679nA	67.6mΩ
23	-111.6V	-4.707nA	64.9mΩ	-110.7V	-5.333nA	65.4mΩ
24	-110.4V	-3.465nA	67.5mΩ	-111.2V	-3.919nA	65.2mΩ
25	-111.0V	-4.209nA	64.9mΩ	-111.9V	-2.198nA	67.4mΩ
26	-111.0V	-2.928nA	67.0mΩ	-111.9V	-1.895nA	65.9mΩ
27	-111.9V	-2.083nA	66.2mΩ	-112.0V	-2.416nA	66.8mΩ
28	-110.6V	-4.703nA	66.9mΩ	-111.1V	-4.727nA	66.5mΩ
29	-110.9V	-4.166nA	68.0mΩ	-111.8V	-5.099nA	68.0mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-111.6V	-4.810nA	66.5mΩ	-110.2V	-1.734nA	65.1mΩ
31	-110.5V	-3.232nA	66.9mΩ	-111.5V	-1.870nA	66.9mΩ
32	-109.7V	-5.652nA	67.2mΩ	-110.2V	-3.624nA	65.9mΩ
33	-109.5V	-3.082nA	66.7mΩ	-110.7V	-3.094nA	66.7mΩ
34	-111.2V	-3.630nA	66.8mΩ	-112.0V	-5.444nA	65.2mΩ
35	-111.0V	-4.438nA	68.2mΩ	-112.3V	-4.541nA	65.7mΩ
36	-109.7V	-4.712nA	66.3mΩ	-112.0V	-2.879nA	67.7mΩ
37	-112.0V	-4.532nA	65.7mΩ	-112.0V	-4.405nA	65.3mΩ
38	-111.8V	-3.331nA	68.5mΩ	-111.2V	-4.620nA	66.4mΩ
39	-110.8V	-3.968nA	66.2mΩ	-109.8V	-5.012nA	66.4mΩ
40	-112.4V	-5.361nA	66.2mΩ	-112.3V	-3.021nA	65.0mΩ
41	-111.4V	-4.741nA	67.1mΩ	-109.9V	-2.222nA	66.0mΩ
42	-110.2V	-3.499nA	68.6mΩ	-110.1V	-2.257nA	66.9mΩ
43	-112.4V	-1.957nA	68.6mΩ	-110.7V	-2.275nA	66.7mΩ
44	-110.6V	-3.554nA	65.1mΩ	-112.1V	-2.732nA	67.6mΩ
45	-110.4V	-4.850nA	65.7mΩ	-109.7V	-3.360nA	67.6mΩ
46	-110.7V	-5.064nA	66.9mΩ	-112.3V	-3.902nA	65.6mΩ
47	-109.6V	-3.353nA	68.5mΩ	-110.5V	-4.649nA	66.4mΩ
48	-110.9V	-5.133nA	68.8mΩ	-109.6V	-5.239nA	67.9mΩ
49	-109.8V	-2.280nA	64.9mΩ	-109.8V	-3.741nA	64.8mΩ
50	-110.2V	-1.930nA	67.1mΩ	-110.1V	-3.601nA	65.2mΩ
51	-111.0V	-5.059nA	66.3mΩ	-111.0V	-4.880nA	68.2mΩ
52	-110.5V	-4.001nA	67.2mΩ	-111.7V	-2.389nA	66.0mΩ
53	-110.8V	-3.399nA	65.5mΩ	-109.5V	-4.035nA	67.5mΩ
54	-110.6V	-4.448nA	68.6mΩ	-111.6V	-2.685nA	66.2mΩ
55	-109.7V	-4.316nA	65.2mΩ	-112.5V	-2.962nA	65.1mΩ
56	-110.2V	-2.544nA	65.7mΩ	-110.3V	-5.074nA	66.3mΩ
57	-112.1V	-5.114nA	67.3mΩ	-112.1V	-3.932nA	67.1mΩ
58	-110.8V	-1.866nA	67.5mΩ	-110.7V	-5.344nA	65.6mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-110.7V	-3.948nA	67.3mΩ	-110.8V	-3.799nA	66.7mΩ
60	-110.0V	-3.941nA	67.8mΩ	-109.6V	-4.757nA	66.7mΩ
61	-112.0V	-1.951nA	66.5mΩ	-110.5V	-2.315nA	67.6mΩ
62	-112.5V	-2.570nA	66.5mΩ	-111.9V	-4.725nA	66.7mΩ
63	-110.9V	-4.018nA	66.9mΩ	-112.0V	-5.422nA	66.4mΩ
64	-112.5V	-2.035nA	67.7mΩ	-112.5V	-5.022nA	66.8mΩ
65	-110.3V	-5.127nA	68.1mΩ	-110.0V	-3.503nA	68.5mΩ
66	-111.9V	-3.937nA	65.9mΩ	-112.1V	-4.118nA	65.1mΩ
67	-112.1V	-4.704nA	65.4mΩ	-110.5V	-3.208nA	66.5mΩ
68	-109.7V	-4.967nA	65.5mΩ	-112.1V	-5.385nA	66.3mΩ
69	-112.1V	-3.092nA	68.1mΩ	-110.9V	-1.725nA	65.9mΩ
70	-111.7V	-3.347nA	67.7mΩ	-111.6V	-2.663nA	66.4mΩ
71	-110.8V	-4.897nA	67.2mΩ	-110.9V	-5.649nA	66.8mΩ
72	-110.7V	-3.396nA	67.1mΩ	-112.4V	-5.632nA	66.8mΩ
73	-112.0V	-5.478nA	65.0mΩ	-112.2V	-2.441nA	66.6mΩ
74	-110.2V	-5.624nA	66.3mΩ	-111.6V	-4.620nA	65.3mΩ
75	-110.5V	-5.524nA	66.4mΩ	-112.1V	-2.402nA	68.6mΩ
76	-109.6V	-1.830nA	66.0mΩ	-111.2V	-4.569nA	65.9mΩ
77	-110.0V	-2.725nA	67.1mΩ	-112.4V	-2.861nA	64.9mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-111.3V	-2.469nA	67.6mΩ	-111.7V	-3.043nA	68.0mΩ
2	-110.1V	-2.151nA	67.2mΩ	-110.6V	-2.948nA	68.7mΩ
3	-112.5V	-1.901nA	68.7mΩ	-111.7V	-3.481nA	66.8mΩ
4	-112.4V	-4.112nA	65.7mΩ	-110.2V	-3.457nA	68.6mΩ
5	-110.1V	-2.079nA	66.9mΩ	-110.0V	-4.967nA	65.6mΩ
6	-111.2V	-5.409nA	65.8mΩ	-112.1V	-2.672nA	68.5mΩ
7	-110.4V	-2.236nA	64.8mΩ	-110.3V	-4.042nA	65.3mΩ
8	-111.3V	-2.953nA	66.5mΩ	-111.8V	-2.556nA	68.6mΩ
9	-110.1V	-1.722nA	67.4mΩ	-109.7V	-4.158nA	65.8mΩ
10	-110.0V	-5.272nA	66.0mΩ	-112.4V	-3.091nA	66.7mΩ
11	-111.9V	-3.020nA	67.2mΩ	-110.4V	-3.176nA	65.1mΩ
12	-111.8V	-3.059nA	67.1mΩ	-111.9V	-4.695nA	67.6mΩ
13	-111.2V	-3.402nA	68.0mΩ	-110.1V	-2.348nA	67.5mΩ
14	-110.8V	-2.245nA	68.8mΩ	-110.0V	-3.969nA	65.0mΩ
15	-111.1V	-3.379nA	66.7mΩ	-111.3V	-4.181nA	67.0mΩ
16	-110.9V	-5.120nA	66.1mΩ	-110.0V	-2.329nA	67.3mΩ
17	-111.1V	-3.940nA	67.1mΩ	-112.4V	-2.243nA	67.9mΩ
18	-111.7V	-5.497nA	68.4mΩ	-109.5V	-5.688nA	65.1mΩ
19	-111.5V	-4.231nA	66.1mΩ	-110.3V	-4.926nA	68.0mΩ
20	-110.8V	-5.308nA	66.5mΩ	-111.3V	-5.090nA	68.1mΩ
21	-111.1V	-1.796nA	68.1mΩ	-111.1V	-2.246nA	67.0mΩ
22	-112.0V	-3.965nA	64.8mΩ	-110.6V	-2.591nA	67.2mΩ
23	-110.4V	-5.151nA	66.4mΩ	-109.7V	-5.052nA	66.0mΩ
24	-111.9V	-2.030nA	67.5mΩ	-111.3V	-5.323nA	67.8mΩ
25	-111.2V	-4.864nA	66.4mΩ	-111.0V	-3.173nA	67.7mΩ
26	-109.6V	-3.463nA	67.9mΩ	-111.9V	-2.120nA	65.7mΩ
27	-110.4V	-1.995nA	66.7mΩ	-112.4V	-3.398nA	64.8mΩ
28	-112.3V	-2.937nA	68.7mΩ	-111.4V	-2.729nA	66.6mΩ
29	-112.3V	-2.111nA	65.8mΩ	-111.4V	-5.382nA	67.4mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-110.9V	-1.996nA	64.9mΩ	-112.3V	-2.781nA	67.8mΩ
31	-111.6V	-4.851nA	68.6mΩ	-110.2V	-3.399nA	67.8mΩ
32	-112.1V	-2.966nA	67.0mΩ	-109.8V	-4.932nA	68.3mΩ
33	-111.3V	-2.402nA	67.8mΩ	-112.4V	-3.594nA	65.3mΩ
34	-111.4V	-2.832nA	67.6mΩ	-109.8V	-2.153nA	68.8mΩ
35	-112.0V	-3.839nA	66.9mΩ	-110.4V	-3.559nA	65.7mΩ
36	-110.2V	-4.545nA	65.9mΩ	-110.5V	-2.767nA	68.0mΩ
37	-112.4V	-5.242nA	65.0mΩ	-111.9V	-4.947nA	64.8mΩ
38	-110.2V	-3.277nA	67.2mΩ	-110.0V	-2.053nA	65.1mΩ
39	-110.9V	-4.713nA	66.5mΩ	-110.3V	-5.178nA	66.9mΩ
40	-109.8V	-2.283nA	65.1mΩ	-110.4V	-5.491nA	65.5mΩ
41	-109.8V	-2.155nA	66.1mΩ	-110.7V	-2.005nA	65.2mΩ
42	-109.7V	-2.651nA	68.6mΩ	-112.5V	-4.027nA	68.0mΩ
43	-111.2V	-3.182nA	65.6mΩ	-109.5V	-3.670nA	66.8mΩ
44	-110.3V	-4.098nA	66.5mΩ	-112.2V	-4.202nA	68.5mΩ
45	-111.4V	-2.228nA	66.7mΩ	-111.0V	-3.515nA	64.8mΩ
46	-111.4V	-2.352nA	68.6mΩ	-111.6V	-5.324nA	67.4mΩ
47	-110.4V	-2.845nA	68.0mΩ	-109.8V	-3.785nA	66.5mΩ
48	-111.4V	-4.759nA	65.6mΩ	-110.1V	-3.086nA	68.3mΩ
49	-110.5V	-2.129nA	67.0mΩ	-112.5V	-4.379nA	64.8mΩ
50	-112.4V	-2.820nA	66.8mΩ	-111.6V	-2.319nA	68.3mΩ
51	-110.6V	-1.910nA	68.3mΩ	-110.7V	-5.271nA	67.8mΩ
52	-111.4V	-4.981nA	66.3mΩ	-112.0V	-1.984nA	67.9mΩ
53	-112.4V	-4.554nA	68.0mΩ	-109.9V	-2.391nA	65.6mΩ
54	-112.4V	-3.729nA	67.9mΩ	-110.3V	-3.975nA	68.4mΩ
55	-112.1V	-4.549nA	64.9mΩ	-111.8V	-1.830nA	67.2mΩ
56	-110.7V	-5.139nA	65.4mΩ	-111.6V	-5.364nA	67.0mΩ
57	-110.8V	-2.775nA	66.2mΩ	-111.2V	-1.844nA	68.5mΩ
58	-111.6V	-2.988nA	67.0mΩ	-111.7V	-1.733nA	68.8mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2019.02.11 ~ 2019.03.26
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-111.1V	-4.708nA	65.8mΩ	-109.9V	-4.516nA	66.6mΩ
60	-110.0V	-1.898nA	65.6mΩ	-111.8V	-3.643nA	68.6mΩ
61	-110.1V	-5.492nA	67.7mΩ	-111.4V	-3.816nA	67.9mΩ
62	-110.4V	-3.575nA	66.4mΩ	-109.8V	-5.428nA	67.2mΩ
63	-110.0V	-4.028nA	66.5mΩ	-109.9V	-5.208nA	65.0mΩ
64	-110.5V	-2.365nA	67.7mΩ	-109.6V	-2.489nA	65.9mΩ
65	-111.3V	-4.620nA	68.8mΩ	-112.2V	-5.141nA	67.8mΩ
66	-109.8V	-3.217nA	65.9mΩ	-110.0V	-2.561nA	67.3mΩ
67	-111.3V	-2.737nA	65.4mΩ	-111.5V	-2.425nA	66.5mΩ
68	-111.2V	-1.900nA	68.1mΩ	-110.5V	-3.122nA	68.5mΩ
69	-110.0V	-5.662nA	68.2mΩ	-111.4V	-4.526nA	65.2mΩ
70	-111.5V	-5.471nA	67.5mΩ	-110.1V	-3.592nA	67.6mΩ
71	-111.2V	-3.545nA	68.0mΩ	-112.0V	-4.599nA	66.9mΩ
72	-110.2V	-2.379nA	64.9mΩ	-110.9V	-5.631nA	65.5mΩ
73	-110.1V	-4.471nA	65.3mΩ	-112.2V	-3.178nA	65.0mΩ
74	-110.1V	-2.867nA	68.2mΩ	-111.1V	-1.788nA	66.7mΩ
75	-110.1V	-4.294nA	65.3mΩ	-110.7V	-4.461nA	66.6mΩ
76	-111.3V	-4.723nA	67.3mΩ	-111.2V	-3.056nA	66.0mΩ
77	-110.4V	-2.715nA	65.8mΩ	-109.9V	-5.575nA	68.5mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T190328-14P10
Part No : SPR14P10-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)DSS >-100V@ID=-250μA ；IDSS < -1μA@VDS=-80V
RDS(ON) < 90mΩ@VGS=-10V, ID=-4.5A
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2019.03.27
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-109.6V	-2.418nA	68.5mΩ	-111.4V	-2.635nA	67.5mΩ
2	-111.6V	-4.531nA	65.7mΩ	-109.6V	-2.586nA	68.3mΩ
3	-110.2V	-3.747nA	68.5mΩ	-110.1V	-4.542nA	67.7mΩ
4	-110.2V	-1.928nA	68.2mΩ	-112.0V	-2.371nA	65.6mΩ
5	-111.9V	-3.847nA	67.7mΩ	-109.7V	-4.449nA	67.7mΩ
6	-112.2V	-5.019nA	66.0mΩ	-111.1V	-2.217nA	67.0mΩ
7	-111.2V	-3.784nA	68.3mΩ	-110.4V	-4.119nA	68.1mΩ
8	-110.8V	-2.833nA	66.3mΩ	-111.7V	-2.486nA	65.2mΩ
9	-111.2V	-1.839nA	66.2mΩ	-110.8V	-1.821nA	65.9mΩ
10	-111.7V	-3.906nA	65.5mΩ	-110.8V	-2.588nA	67.7mΩ

Made By: Leo Hsia

Approval: Peter Yang