www.SeCosGmbH.com

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

PCN#	Effective Date	Issue Date
2015-11-01C-02	2016/2/1	2015/11/1

PCN Classification	Product Category
Major	MOSFET

Subject
Change the assembly house.

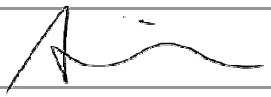
Affected Product(s)
SSD10N20-400D

Description of Change(s)
The original assembly house, GTM Corporation, was shut down; thus, we change to the second assembly house.

Content of Change(s)
Assembly house.

Impact(s)
None

Attachment(s)
Reliability Test Report.

Approval		
Issued by	Alice Lai	e-mail: alice@secosgmbh.com
Development Engineer		Alice Lai
QA Manager		Peter Yang
General Manger		Mathew Liu
Customer Approval		
Customer's Comment		
Customer's Consent with Signature		

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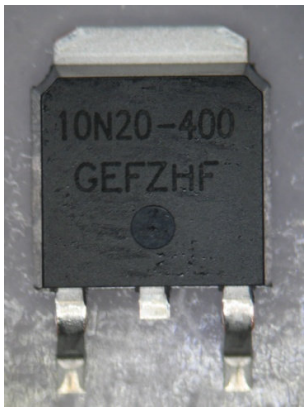
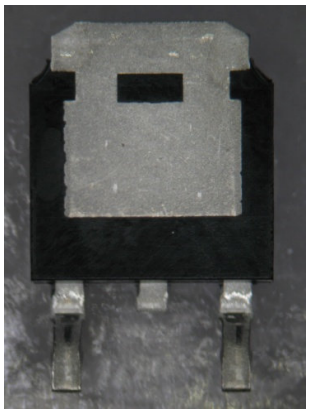
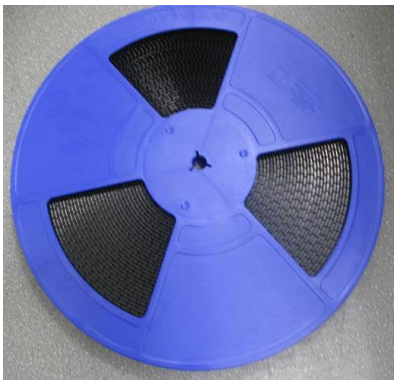
Exterior Comparison Chart	
Original	New
	
Top View	Top View
	
Back View	Back View
	
Reel	Reel

SeCoS Corporation

Reliability Testing Summary Report

Date: 2015/10/20 Document No.: SI15 -10-115

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	SSD10N20-400D	100 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	SSD10N20-400D	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	SSD10N20-400D	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	SSD10N20-400D	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	SSD10N20-400D	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	SSD10N20-400D	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	SSD10N20-400D	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: 2015.08.25 Testing End Date: 2015.10.20

Tester: King Huang **Approval:** Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 25℃
Test Date: 2015.08.25
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	1.287nA	3.074V	304mΩ
2	1.735nA	3.028V	296mΩ
3	0.447nA	3.081V	307mΩ
4	1.792nA	3.068V	292mΩ
5	4.108nA	2.998V	305mΩ
6	4.250nA	3.115V	300mΩ
7	6.129nA	2.998V	294mΩ
8	5.611nA	3.096V	308mΩ
9	3.588nA	3.099V	296mΩ
10	1.157nA	2.983V	306mΩ
11	3.437nA	3.058V	298mΩ
12	2.275nA	3.034V	302mΩ
13	1.340nA	3.097V	292mΩ
14	1.294nA	3.052V	309mΩ
15	2.133nA	2.993V	298mΩ
16	4.039nA	3.076V	294mΩ
17	6.213nA	3.057V	305mΩ
18	1.930nA	3.093V	308mΩ
19	6.424nA	3.080V	309mΩ
20	4.664nA	3.093V	304mΩ
21	3.342nA	3.019V	292mΩ
22	5.855nA	2.993V	299mΩ
23	1.762nA	3.082V	299mΩ
24	1.251nA	3.055V	308mΩ
25	7.006nA	3.087V	291mΩ
26	1.556nA	3.099V	309mΩ
27	3.459nA	3.110V	297mΩ
28	1.538nA	3.092V	292mΩ
29	6.988nA	2.973V	295mΩ
30	6.650nA	2.982V	298mΩ

SeCoS Corporation

Electrical Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 25℃
Test Date: 2015.08.25
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
31	0.694nA	3.063V	294mΩ
32	3.335nA	3.005V	303mΩ
33	0.821nA	3.084V	301mΩ
34	3.443nA	3.110V	303mΩ
35	7.247nA	2.988V	303mΩ
36	6.808nA	2.998V	302mΩ
37	2.898nA	3.083V	304mΩ
38	0.998nA	2.974V	293mΩ
39	5.395nA	3.109V	303mΩ
40	6.449nA	3.105V	294mΩ
41	6.095nA	3.088V	302mΩ
42	6.658nA	3.081V	307mΩ
43	4.711nA	2.978V	307mΩ
44	5.210nA	3.045V	292mΩ
45	0.999nA	3.075V	306mΩ
46	0.865nA	3.071V	296mΩ
47	3.244nA	3.107V	295mΩ
48	7.228nA	3.102V	299mΩ
49	2.270nA	3.099V	305mΩ
50	5.760nA	3.016V	291mΩ
51	0.406nA	3.018V	291mΩ
52	6.529nA	2.973V	296mΩ
53	5.566nA	3.060V	306mΩ
54	2.067nA	3.048V	291mΩ
55	2.628nA	3.109V	303mΩ
56	2.100nA	2.988V	305mΩ
57	2.365nA	3.003V	302mΩ
58	1.733nA	3.113V	303mΩ
59	2.557nA	3.003V	294mΩ
60	2.221nA	2.986V	291mΩ

SeCoS Corporation

Electrical Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 25℃
Test Date: 2015.08.25
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
61	4.602nA	3.013V	306mΩ
62	2.574nA	3.098V	309mΩ
63	3.318nA	3.028V	295mΩ
64	1.036nA	3.049V	303mΩ
65	4.948nA	2.989V	292mΩ
66	4.929nA	2.976V	302mΩ
67	1.242nA	3.066V	291mΩ
68	5.094nA	2.990V	297mΩ
69	4.881nA	3.051V	297mΩ
70	3.813nA	3.049V	296mΩ
71	5.589nA	3.107V	291mΩ
72	4.425nA	3.009V	303mΩ
73	3.068nA	3.051V	298mΩ
74	4.569nA	3.034V	306mΩ
75	2.599nA	3.115V	301mΩ
76	3.065nA	3.099V	293mΩ
77	6.826nA	3.076V	298mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	3.987nA	2.998V	291mΩ	0.884nA	3.101V	295mΩ
2	3.362nA	3.061V	308mΩ	4.956nA	2.987V	290mΩ
3	4.249nA	3.058V	297mΩ	3.685nA	2.982V	304mΩ
4	7.102nA	3.071V	295mΩ	2.322nA	3.001V	302mΩ
5	1.013nA	3.028V	304mΩ	1.661nA	3.029V	296mΩ
6	4.484nA	3.026V	298mΩ	2.458nA	3.039V	294mΩ
7	3.411nA	3.071V	293mΩ	6.486nA	3.032V	307mΩ
8	2.423nA	3.046V	302mΩ	1.412nA	3.044V	304mΩ
9	4.619nA	3.075V	297mΩ	5.081nA	3.016V	291mΩ
10	2.703nA	3.016V	302mΩ	4.223nA	3.076V	304mΩ
11	5.211nA	2.979V	301mΩ	6.943nA	2.979V	306mΩ
12	2.566nA	2.988V	297mΩ	5.981nA	3.012V	301mΩ
13	6.759nA	3.053V	301mΩ	3.447nA	3.019V	293mΩ
14	3.499nA	3.097V	304mΩ	5.542nA	2.979V	301mΩ
15	3.411nA	3.028V	294mΩ	5.825nA	3.071V	299mΩ
16	5.721nA	2.985V	298mΩ	4.524nA	3.064V	306mΩ
17	0.720nA	3.012V	303mΩ	6.285nA	3.037V	300mΩ
18	4.885nA	2.980V	295mΩ	3.833nA	3.015V	305mΩ
19	5.408nA	3.107V	292mΩ	0.372nA	3.105V	306mΩ
20	2.020nA	3.036V	297mΩ	3.543nA	2.988V	309mΩ
21	4.196nA	3.000V	296mΩ	4.337nA	3.043V	291mΩ
22	6.539nA	3.041V	301mΩ	5.644nA	3.043V	306mΩ
23	4.930nA	3.027V	305mΩ	4.300nA	3.022V	294mΩ
24	1.904nA	3.060V	299mΩ	0.804nA	3.010V	307mΩ
25	0.961nA	3.100V	308mΩ	6.708nA	3.092V	309mΩ
26	4.986nA	2.990V	297mΩ	1.426nA	3.002V	294mΩ
27	4.507nA	3.106V	296mΩ	3.191nA	2.977V	299mΩ
28	2.545nA	3.090V	298mΩ	2.504nA	3.019V	308mΩ
29	5.309nA	3.064V	308mΩ	5.982nA	3.076V	302mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	3.634nA	3.043V	301mΩ	2.212nA	3.093V	303mΩ
31	1.585nA	3.037V	296mΩ	4.773nA	3.062V	302mΩ
32	1.115nA	3.024V	301mΩ	2.976nA	3.090V	290mΩ
33	4.229nA	3.078V	302mΩ	4.007nA	3.059V	305mΩ
34	6.274nA	3.087V	301mΩ	4.081nA	2.977V	305mΩ
35	2.390nA	2.972V	300mΩ	1.199nA	3.022V	293mΩ
36	1.291nA	3.077V	291mΩ	6.528nA	3.017V	291mΩ
37	6.659nA	2.989V	301mΩ	4.380nA	2.985V	293mΩ
38	5.017nA	3.085V	292mΩ	6.865nA	3.032V	297mΩ
39	1.967nA	3.003V	302mΩ	6.587nA	3.041V	293mΩ
40	2.473nA	3.048V	291mΩ	1.466nA	3.092V	295mΩ
41	0.384nA	3.108V	298mΩ	6.421nA	2.973V	308mΩ
42	1.387nA	2.974V	293mΩ	4.374nA	3.105V	308mΩ
43	6.463nA	3.064V	302mΩ	4.974nA	3.054V	290mΩ
44	4.829nA	3.062V	299mΩ	5.242nA	3.096V	306mΩ
45	5.484nA	3.111V	292mΩ	6.328nA	3.020V	298mΩ
46	6.901nA	3.109V	303mΩ	2.354nA	3.011V	295mΩ
47	7.178nA	2.976V	293mΩ	2.468nA	2.981V	299mΩ
48	5.859nA	3.085V	306mΩ	3.441nA	3.073V	292mΩ
49	0.990nA	3.046V	307mΩ	3.149nA	2.975V	298mΩ
50	4.091nA	2.978V	304mΩ	1.026nA	3.015V	308mΩ
51	4.953nA	2.996V	301mΩ	2.681nA	3.011V	300mΩ
52	3.294nA	3.066V	304mΩ	6.390nA	3.112V	306mΩ
53	1.022nA	2.983V	292mΩ	2.896nA	3.106V	303mΩ
54	7.123nA	3.075V	294mΩ	3.237nA	3.051V	305mΩ
55	1.430nA	3.074V	307mΩ	6.234nA	2.981V	304mΩ
56	5.039nA	2.976V	295mΩ	6.292nA	3.106V	294mΩ
57	0.476nA	2.999V	301mΩ	7.131nA	3.066V	299mΩ
58	1.853nA	3.069V	305mΩ	5.729nA	3.101V	300mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	3.760nA	3.030V	306mΩ	2.560nA	2.999V	302mΩ
60	5.224nA	3.059V	308mΩ	2.091nA	3.105V	296mΩ
61	5.504nA	2.974V	291mΩ	6.336nA	3.070V	300mΩ
62	3.863nA	3.105V	295mΩ	7.021nA	3.009V	297mΩ
63	0.565nA	2.999V	296mΩ	2.348nA	3.094V	306mΩ
64	1.068nA	2.999V	292mΩ	2.395nA	3.082V	308mΩ
65	6.289nA	3.085V	297mΩ	3.519nA	3.111V	295mΩ
66	4.026nA	3.001V	304mΩ	3.559nA	3.009V	303mΩ
67	4.083nA	3.095V	305mΩ	5.018nA	3.082V	296mΩ
68	5.040nA	3.101V	297mΩ	2.139nA	3.046V	293mΩ
69	0.492nA	3.075V	306mΩ	1.830nA	3.078V	296mΩ
70	2.208nA	3.111V	294mΩ	1.034nA	3.046V	304mΩ
71	0.855nA	3.013V	299mΩ	0.751nA	3.015V	292mΩ
72	4.658nA	3.096V	297mΩ	1.580nA	3.103V	301mΩ
73	3.483nA	2.973V	293mΩ	4.952nA	3.100V	303mΩ
74	1.363nA	3.082V	301mΩ	4.218nA	3.061V	296mΩ
75	5.887nA	3.112V	297mΩ	4.009nA	3.057V	304mΩ
76	3.968nA	3.076V	302mΩ	3.288nA	3.046V	303mΩ
77	5.837nA	3.054V	291mΩ	7.144nA	2.990V	291mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	0.392nA	3.028V	291mΩ	1.230nA	3.088V	291mΩ
2	4.625nA	2.986V	291mΩ	1.209nA	3.091V	305mΩ
3	1.228nA	3.007V	293mΩ	3.901nA	3.102V	301mΩ
4	2.062nA	3.078V	303mΩ	3.652nA	2.978V	300mΩ
5	1.410nA	3.012V	308mΩ	6.933nA	3.093V	293mΩ
6	5.027nA	3.048V	303mΩ	4.305nA	3.037V	291mΩ
7	3.468nA	3.035V	301mΩ	6.910nA	3.041V	298mΩ
8	0.724nA	3.018V	301mΩ	0.950nA	3.029V	298mΩ
9	2.494nA	3.094V	297mΩ	5.629nA	3.107V	307mΩ
10	1.256nA	3.010V	295mΩ	5.864nA	3.001V	293mΩ
11	4.992nA	3.075V	298mΩ	6.670nA	3.090V	298mΩ
12	0.656nA	3.032V	309mΩ	1.875nA	3.026V	293mΩ
13	1.910nA	3.084V	306mΩ	4.168nA	3.025V	291mΩ
14	4.086nA	3.071V	293mΩ	3.172nA	3.035V	306mΩ
15	1.696nA	2.975V	302mΩ	6.718nA	2.997V	302mΩ
16	5.569nA	3.074V	307mΩ	4.876nA	3.065V	306mΩ
17	4.825nA	3.074V	294mΩ	1.254nA	3.026V	309mΩ
18	5.625nA	3.013V	293mΩ	6.387nA	3.010V	297mΩ
19	4.370nA	2.973V	303mΩ	0.950nA	3.107V	308mΩ
20	1.255nA	3.024V	304mΩ	2.307nA	3.071V	300mΩ
21	4.298nA	3.000V	303mΩ	0.723nA	2.971V	299mΩ
22	3.840nA	3.065V	308mΩ	6.568nA	2.998V	306mΩ
23	2.815nA	3.048V	299mΩ	1.745nA	3.019V	292mΩ
24	5.533nA	3.008V	309mΩ	0.777nA	2.982V	294mΩ
25	6.750nA	3.057V	298mΩ	5.669nA	3.023V	293mΩ
26	2.569nA	2.990V	308mΩ	5.556nA	2.987V	302mΩ
27	4.972nA	2.985V	306mΩ	3.121nA	2.991V	294mΩ
28	4.459nA	2.990V	306mΩ	2.458nA	3.024V	299mΩ
29	4.181nA	2.999V	292mΩ	4.262nA	2.972V	298mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	2.995nA	3.087V	302mΩ	0.663nA	3.051V	292mΩ
31	4.898nA	2.982V	294mΩ	4.714nA	3.100V	306mΩ
32	6.991nA	2.999V	293mΩ	5.899nA	3.076V	296mΩ
33	0.426nA	3.055V	304mΩ	1.383nA	3.048V	292mΩ
34	1.958nA	3.102V	308mΩ	5.925nA	3.016V	308mΩ
35	7.167nA	3.027V	293mΩ	6.834nA	3.092V	295mΩ
36	1.659nA	3.084V	299mΩ	4.608nA	3.087V	303mΩ
37	1.015nA	3.096V	291mΩ	7.113nA	3.016V	298mΩ
38	6.211nA	3.017V	303mΩ	2.275nA	3.056V	301mΩ
39	3.687nA	2.980V	298mΩ	5.489nA	3.000V	291mΩ
40	1.901nA	3.092V	300mΩ	3.903nA	2.992V	305mΩ
41	7.211nA	3.007V	304mΩ	3.128nA	3.041V	292mΩ
42	1.453nA	3.073V	306mΩ	6.519nA	3.043V	294mΩ
43	3.235nA	3.073V	308mΩ	4.850nA	3.063V	296mΩ
44	4.504nA	3.028V	300mΩ	1.695nA	3.033V	308mΩ
45	1.143nA	3.110V	298mΩ	3.738nA	3.100V	302mΩ
46	2.380nA	3.045V	297mΩ	5.127nA	3.004V	294mΩ
47	0.397nA	3.091V	304mΩ	3.488nA	3.110V	306mΩ
48	0.931nA	3.094V	292mΩ	5.264nA	3.115V	293mΩ
49	3.257nA	3.063V	297mΩ	5.143nA	2.983V	308mΩ
50	3.162nA	3.033V	303mΩ	3.596nA	3.089V	305mΩ
51	5.026nA	3.032V	299mΩ	1.254nA	3.033V	297mΩ
52	3.189nA	3.020V	308mΩ	3.930nA	3.109V	304mΩ
53	3.057nA	3.095V	303mΩ	6.582nA	3.015V	294mΩ
54	4.040nA	3.016V	303mΩ	4.929nA	3.057V	293mΩ
55	2.452nA	2.986V	301mΩ	6.370nA	3.098V	309mΩ
56	3.541nA	3.001V	308mΩ	6.373nA	3.092V	298mΩ
57	1.376nA	3.041V	304mΩ	3.245nA	3.013V	300mΩ
58	2.259nA	3.029V	294mΩ	6.440nA	3.020V	293mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.07
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	5.792nA	3.061V	298mΩ	5.521nA	3.043V	300mΩ
60	3.681nA	3.035V	291mΩ	5.240nA	2.993V	299mΩ
61	0.884nA	3.040V	291mΩ	5.492nA	2.983V	301mΩ
62	4.230nA	2.992V	307mΩ	6.251nA	3.113V	306mΩ
63	7.038nA	3.064V	293mΩ	4.721nA	3.109V	296mΩ
64	1.605nA	2.979V	292mΩ	4.385nA	2.983V	293mΩ
65	3.841nA	3.003V	307mΩ	7.186nA	3.033V	296mΩ
66	4.365nA	3.050V	299mΩ	3.089nA	3.029V	293mΩ
67	2.166nA	2.988V	303mΩ	3.230nA	3.029V	299mΩ
68	1.027nA	2.978V	306mΩ	1.899nA	3.044V	306mΩ
69	6.079nA	3.105V	309mΩ	1.615nA	3.037V	292mΩ
70	5.587nA	3.002V	305mΩ	3.566nA	3.000V	303mΩ
71	2.426nA	2.982V	301mΩ	5.928nA	2.975V	294mΩ
72	4.880nA	3.000V	293mΩ	1.610nA	3.067V	295mΩ
73	1.581nA	2.981V	292mΩ	3.505nA	3.088V	291mΩ
74	4.579nA	3.083V	308mΩ	3.792nA	3.065V	293mΩ
75	1.220nA	3.036V	302mΩ	6.860nA	2.992V	299mΩ
76	7.094nA	3.106V	307mΩ	4.445nA	3.057V	296mΩ
77	5.786nA	3.080V	298mΩ	1.262nA	3.046V	300mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.25 ~ 2015.09.02
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	0.742nA	3.101V	307mΩ	6.163nA	3.026V	307mΩ
2	4.975nA	2.987V	305mΩ	1.155nA	3.054V	291mΩ
3	1.223nA	3.052V	307mΩ	6.609nA	3.081V	303mΩ
4	6.738nA	3.070V	293mΩ	4.795nA	3.113V	294mΩ
5	0.931nA	3.027V	308mΩ	7.166nA	2.998V	292mΩ
6	2.147nA	3.032V	291mΩ	1.403nA	3.016V	301mΩ
7	4.525nA	3.105V	305mΩ	3.902nA	2.994V	308mΩ
8	3.319nA	3.039V	297mΩ	4.947nA	2.988V	290mΩ
9	1.416nA	3.019V	298mΩ	3.364nA	2.996V	307mΩ
10	5.434nA	3.051V	300mΩ	1.753nA	3.063V	305mΩ
11	7.080nA	3.041V	308mΩ	1.625nA	3.103V	299mΩ
12	3.269nA	3.113V	298mΩ	5.143nA	3.066V	293mΩ
13	2.432nA	3.104V	290mΩ	3.530nA	2.990V	304mΩ
14	3.602nA	3.051V	300mΩ	1.379nA	2.993V	292mΩ
15	2.413nA	3.030V	307mΩ	2.497nA	3.110V	292mΩ
16	2.179nA	3.048V	306mΩ	7.042nA	2.991V	303mΩ
17	5.229nA	3.090V	293mΩ	4.533nA	3.032V	304mΩ
18	4.946nA	3.094V	304mΩ	4.940nA	3.033V	293mΩ
19	5.787nA	3.032V	301mΩ	4.771nA	2.986V	298mΩ
20	5.717nA	2.992V	305mΩ	0.685nA	3.000V	297mΩ
21	3.694nA	3.045V	297mΩ	1.430nA	3.105V	292mΩ
22	1.017nA	3.109V	309mΩ	3.348nA	3.083V	299mΩ
23	3.184nA	3.083V	306mΩ	2.099nA	3.053V	299mΩ
24	5.979nA	3.060V	299mΩ	1.378nA	3.045V	305mΩ
25	4.236nA	3.110V	296mΩ	3.647nA	3.055V	292mΩ
26	1.123nA	3.036V	302mΩ	5.217nA	3.082V	301mΩ
27	7.153nA	3.021V	307mΩ	4.919nA	3.046V	305mΩ
28	7.185nA	3.099V	306mΩ	5.526nA	3.036V	297mΩ
29	6.487nA	2.990V	298mΩ	7.172nA	3.080V	298mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.25 ~ 2015.09.02
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	2.580nA	3.108V	297mΩ	3.139nA	3.070V	304mΩ
31	0.368nA	3.092V	296mΩ	5.392nA	2.989V	303mΩ
32	0.590nA	3.047V	297mΩ	2.246nA	3.042V	306mΩ
33	6.562nA	3.065V	298mΩ	1.682nA	3.043V	292mΩ
34	3.819nA	2.981V	291mΩ	6.077nA	3.004V	304mΩ
35	2.771nA	3.094V	296mΩ	5.434nA	3.071V	302mΩ
36	3.673nA	2.988V	304mΩ	2.567nA	3.043V	291mΩ
37	4.679nA	3.100V	292mΩ	6.820nA	3.083V	307mΩ
38	5.923nA	3.066V	303mΩ	6.892nA	3.105V	307mΩ
39	7.219nA	3.038V	309mΩ	5.017nA	3.056V	297mΩ
40	0.821nA	2.984V	305mΩ	7.029nA	2.976V	304mΩ
41	0.852nA	3.064V	306mΩ	6.208nA	3.028V	301mΩ
42	3.732nA	3.015V	306mΩ	4.233nA	3.115V	293mΩ
43	3.927nA	3.080V	307mΩ	2.805nA	3.086V	299mΩ
44	7.072nA	3.061V	306mΩ	4.152nA	3.054V	294mΩ
45	3.633nA	3.096V	298mΩ	4.091nA	3.004V	302mΩ
46	6.033nA	3.026V	290mΩ	2.903nA	3.065V	300mΩ
47	5.692nA	3.025V	293mΩ	4.096nA	3.106V	293mΩ
48	2.487nA	3.080V	304mΩ	2.021nA	2.997V	298mΩ
49	2.932nA	3.073V	292mΩ	4.492nA	3.092V	290mΩ
50	1.423nA	3.007V	294mΩ	0.635nA	2.971V	294mΩ
51	3.724nA	3.018V	309mΩ	3.669nA	3.096V	304mΩ
52	3.040nA	3.065V	295mΩ	6.718nA	3.073V	299mΩ
53	4.376nA	3.013V	296mΩ	6.676nA	3.096V	291mΩ
54	5.270nA	2.986V	298mΩ	1.046nA	3.080V	301mΩ
55	1.880nA	3.044V	299mΩ	6.542nA	3.096V	301mΩ
56	7.063nA	3.095V	299mΩ	1.639nA	3.082V	301mΩ
57	4.295nA	3.081V	294mΩ	4.032nA	3.060V	290mΩ
58	1.326nA	3.097V	293mΩ	5.840nA	2.972V	303mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.25 ~ 2015.09.02
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	3.950nA	3.104V	300mΩ	6.488nA	3.089V	294mΩ
60	6.881nA	3.104V	296mΩ	4.486nA	2.999V	293mΩ
61	2.415nA	3.013V	309mΩ	3.503nA	3.025V	308mΩ
62	4.137nA	3.036V	307mΩ	5.361nA	3.078V	307mΩ
63	5.606nA	3.107V	306mΩ	6.129nA	2.991V	303mΩ
64	1.678nA	3.041V	291mΩ	2.836nA	2.978V	306mΩ
65	1.276nA	2.990V	302mΩ	5.528nA	3.014V	305mΩ
66	1.447nA	3.067V	307mΩ	4.672nA	2.973V	302mΩ
67	5.932nA	2.990V	305mΩ	1.696nA	3.112V	303mΩ
68	5.355nA	3.087V	300mΩ	2.250nA	3.101V	298mΩ
69	6.496nA	3.017V	309mΩ	7.197nA	3.110V	308mΩ
70	6.144nA	3.050V	304mΩ	6.292nA	3.020V	308mΩ
71	2.168nA	2.970V	292mΩ	3.153nA	3.101V	295mΩ
72	4.102nA	2.985V	293mΩ	3.579nA	3.001V	304mΩ
73	1.392nA	3.056V	305mΩ	1.302nA	3.051V	306mΩ
74	6.616nA	2.997V	303mΩ	6.604nA	3.093V	294mΩ
75	6.207nA	3.040V	308mΩ	4.216nA	2.976V	302mΩ
76	2.019nA	3.022V	295mΩ	5.137nA	3.021V	291mΩ
77	2.788nA	3.026V	291mΩ	3.814nA	3.044V	294mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.25 ~ 2015.10.16
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	4.343nA	3.053V	292mΩ	5.539nA	2.976V	300mΩ
2	6.597nA	3.077V	296mΩ	4.424nA	3.066V	306mΩ
3	6.430nA	2.980V	301mΩ	6.366nA	3.099V	301mΩ
4	1.127nA	3.001V	297mΩ	1.008nA	2.977V	291mΩ
5	1.040nA	2.987V	292mΩ	3.965nA	2.985V	302mΩ
6	1.518nA	3.090V	300mΩ	1.188nA	3.095V	298mΩ
7	0.904nA	3.106V	308mΩ	0.474nA	3.014V	302mΩ
8	1.337nA	2.992V	299mΩ	4.021nA	3.017V	304mΩ
9	1.024nA	3.014V	296mΩ	4.078nA	2.995V	308mΩ
10	7.152nA	2.973V	294mΩ	3.077nA	3.098V	297mΩ
11	5.909nA	3.110V	300mΩ	3.666nA	3.022V	309mΩ
12	4.334nA	3.075V	295mΩ	3.053nA	3.076V	299mΩ
13	5.023nA	2.981V	297mΩ	5.095nA	3.083V	308mΩ
14	4.917nA	3.100V	304mΩ	6.717nA	3.022V	306mΩ
15	2.800nA	3.108V	302mΩ	4.693nA	3.051V	303mΩ
16	5.672nA	3.083V	296mΩ	6.651nA	2.972V	294mΩ
17	3.867nA	3.033V	296mΩ	3.331nA	2.972V	297mΩ
18	0.842nA	3.099V	291mΩ	3.177nA	2.987V	291mΩ
19	5.460nA	3.102V	305mΩ	4.679nA	3.046V	293mΩ
20	6.185nA	3.044V	296mΩ	6.813nA	3.082V	306mΩ
21	1.422nA	3.000V	308mΩ	0.384nA	3.074V	290mΩ
22	1.061nA	2.994V	299mΩ	1.479nA	3.060V	301mΩ
23	0.544nA	3.088V	294mΩ	2.542nA	3.097V	303mΩ
24	4.419nA	3.100V	292mΩ	4.318nA	3.048V	293mΩ
25	7.099nA	3.011V	299mΩ	3.299nA	3.093V	308mΩ
26	4.341nA	2.982V	296mΩ	3.377nA	3.084V	291mΩ
27	5.353nA	3.090V	309mΩ	1.621nA	3.056V	301mΩ
28	5.362nA	2.985V	294mΩ	6.078nA	2.980V	298mΩ
29	0.944nA	3.038V	295mΩ	5.747nA	3.047V	306mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.25 ~ 2015.10.16
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	1.094nA	3.105V	305mΩ	6.623nA	3.108V	300mΩ
31	1.442nA	3.055V	306mΩ	3.480nA	3.038V	304mΩ
32	2.559nA	2.983V	297mΩ	3.711nA	3.080V	303mΩ
33	2.192nA	3.091V	309mΩ	3.623nA	3.100V	291mΩ
34	5.239nA	3.087V	291mΩ	1.448nA	3.015V	304mΩ
35	5.697nA	3.067V	296mΩ	4.573nA	2.993V	290mΩ
36	6.643nA	2.992V	301mΩ	7.096nA	3.088V	294mΩ
37	5.275nA	2.972V	306mΩ	0.635nA	3.057V	306mΩ
38	4.146nA	3.115V	302mΩ	2.496nA	3.015V	296mΩ
39	4.914nA	3.114V	299mΩ	1.161nA	3.006V	292mΩ
40	5.206nA	3.007V	303mΩ	5.948nA	3.052V	302mΩ
41	1.665nA	3.017V	295mΩ	2.389nA	3.041V	302mΩ
42	2.558nA	3.058V	302mΩ	1.171nA	3.012V	294mΩ
43	6.772nA	3.021V	308mΩ	3.605nA	2.988V	298mΩ
44	1.328nA	3.066V	301mΩ	3.318nA	3.100V	302mΩ
45	4.267nA	3.010V	309mΩ	6.184nA	3.041V	297mΩ
46	4.633nA	3.101V	298mΩ	4.624nA	3.064V	301mΩ
47	4.774nA	2.979V	309mΩ	4.997nA	3.018V	302mΩ
48	0.428nA	2.989V	302mΩ	0.844nA	3.025V	292mΩ
49	6.071nA	3.106V	291mΩ	3.450nA	2.995V	305mΩ
50	1.808nA	2.972V	305mΩ	3.011nA	3.084V	307mΩ
51	6.766nA	3.013V	306mΩ	6.677nA	3.053V	298mΩ
52	4.284nA	2.982V	294mΩ	5.060nA	3.067V	297mΩ
53	2.614nA	3.033V	307mΩ	1.602nA	3.106V	297mΩ
54	1.719nA	3.044V	292mΩ	2.866nA	3.102V	306mΩ
55	5.100nA	2.989V	306mΩ	1.567nA	3.070V	306mΩ
56	2.138nA	2.994V	293mΩ	4.586nA	3.021V	295mΩ
57	3.266nA	3.002V	299mΩ	0.703nA	2.976V	304mΩ
58	1.635nA	3.017V	303mΩ	1.852nA	2.986V	293mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.25 ~ 2015.10.16
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	3.300nA	3.005V	299mΩ	7.167nA	3.057V	307mΩ
60	4.112nA	2.977V	300mΩ	7.069nA	3.003V	291mΩ
61	3.414nA	3.039V	292mΩ	4.045nA	3.099V	292mΩ
62	4.818nA	3.034V	300mΩ	6.774nA	2.983V	296mΩ
63	2.514nA	3.022V	308mΩ	5.696nA	3.041V	295mΩ
64	1.454nA	3.091V	298mΩ	1.771nA	3.030V	297mΩ
65	0.758nA	2.998V	296mΩ	1.177nA	3.093V	309mΩ
66	4.013nA	3.052V	304mΩ	2.042nA	3.044V	297mΩ
67	5.751nA	3.051V	307mΩ	2.731nA	3.074V	299mΩ
68	7.113nA	2.972V	293mΩ	2.310nA	3.066V	303mΩ
69	7.176nA	3.029V	307mΩ	3.587nA	3.096V	295mΩ
70	2.853nA	3.086V	296mΩ	1.648nA	2.984V	300mΩ
71	5.697nA	2.989V	300mΩ	5.773nA	3.080V	297mΩ
72	3.995nA	3.115V	292mΩ	3.364nA	3.043V	306mΩ
73	6.229nA	3.106V	306mΩ	0.736nA	3.093V	303mΩ
74	1.029nA	3.094V	302mΩ	3.937nA	3.086V	306mΩ
75	6.947nA	3.017V	295mΩ	4.317nA	3.077V	299mΩ
76	0.408nA	3.067V	304mΩ	3.503nA	3.100V	293mΩ
77	2.823nA	3.101V	293mΩ	0.655nA	2.983V	308mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	7.161nA	3.069V	298mΩ	3.567nA	2.999V	294mΩ
2	4.782nA	3.041V	298mΩ	3.362nA	3.059V	303mΩ
3	1.634nA	3.014V	297mΩ	6.924nA	3.042V	308mΩ
4	3.582nA	2.989V	304mΩ	6.055nA	3.059V	291mΩ
5	4.107nA	3.095V	293mΩ	6.334nA	3.053V	294mΩ
6	6.608nA	3.069V	302mΩ	7.219nA	3.100V	308mΩ
7	6.297nA	3.016V	298mΩ	5.030nA	3.020V	306mΩ
8	5.325nA	3.068V	305mΩ	6.325nA	3.025V	291mΩ
9	2.558nA	3.011V	307mΩ	6.271nA	3.001V	294mΩ
10	1.446nA	3.110V	292mΩ	0.632nA	3.000V	303mΩ
11	4.510nA	2.987V	307mΩ	6.327nA	3.005V	297mΩ
12	0.971nA	3.022V	300mΩ	3.945nA	3.094V	297mΩ
13	5.615nA	3.084V	295mΩ	5.239nA	2.993V	296mΩ
14	6.934nA	3.036V	301mΩ	0.809nA	3.097V	303mΩ
15	4.778nA	2.996V	292mΩ	2.996nA	3.087V	303mΩ
16	4.115nA	3.051V	296mΩ	3.243nA	3.102V	295mΩ
17	6.800nA	3.035V	306mΩ	5.307nA	2.991V	297mΩ
18	3.555nA	3.046V	302mΩ	2.763nA	3.008V	305mΩ
19	1.171nA	3.025V	293mΩ	4.444nA	3.021V	301mΩ
20	7.174nA	3.075V	292mΩ	3.460nA	3.000V	305mΩ
21	0.982nA	3.110V	308mΩ	1.388nA	3.035V	304mΩ
22	1.466nA	3.104V	306mΩ	5.455nA	3.001V	307mΩ
23	3.888nA	3.090V	295mΩ	0.841nA	2.995V	307mΩ
24	2.111nA	2.982V	304mΩ	2.982nA	3.089V	298mΩ
25	2.901nA	3.103V	292mΩ	2.041nA	3.111V	304mΩ
26	4.037nA	3.092V	297mΩ	7.042nA	2.997V	300mΩ
27	5.065nA	3.019V	308mΩ	3.696nA	2.984V	298mΩ
28	4.434nA	3.015V	300mΩ	6.773nA	3.030V	292mΩ
29	6.410nA	3.094V	296mΩ	0.557nA	2.997V	301mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	6.481nA	3.072V	295mΩ	5.991nA	2.972V	308mΩ
31	2.280nA	3.085V	309mΩ	5.318nA	3.113V	300mΩ
32	4.926nA	3.102V	291mΩ	3.315nA	2.993V	308mΩ
33	3.963nA	2.975V	296mΩ	1.884nA	3.015V	309mΩ
34	1.804nA	3.062V	298mΩ	5.721nA	2.971V	306mΩ
35	0.737nA	3.060V	307mΩ	5.912nA	2.971V	304mΩ
36	6.570nA	2.975V	299mΩ	4.314nA	3.044V	308mΩ
37	1.078nA	3.026V	302mΩ	0.612nA	2.980V	308mΩ
38	1.800nA	3.055V	300mΩ	0.799nA	3.026V	292mΩ
39	6.519nA	3.112V	294mΩ	3.082nA	3.099V	305mΩ
40	3.982nA	3.075V	300mΩ	1.786nA	2.973V	303mΩ
41	4.387nA	2.992V	293mΩ	6.225nA	3.111V	295mΩ
42	5.143nA	3.067V	296mΩ	6.282nA	3.039V	291mΩ
43	4.318nA	3.106V	308mΩ	6.756nA	3.054V	308mΩ
44	1.020nA	3.088V	307mΩ	4.223nA	3.036V	308mΩ
45	2.631nA	2.984V	295mΩ	4.039nA	3.021V	306mΩ
46	7.013nA	2.991V	304mΩ	5.183nA	3.033V	307mΩ
47	2.606nA	3.072V	294mΩ	3.760nA	3.012V	307mΩ
48	3.699nA	3.022V	305mΩ	3.130nA	3.009V	295mΩ
49	1.411nA	3.068V	290mΩ	6.966nA	2.990V	301mΩ
50	3.779nA	3.052V	301mΩ	0.779nA	2.999V	292mΩ
51	3.704nA	3.053V	303mΩ	6.788nA	3.026V	306mΩ
52	5.668nA	3.064V	296mΩ	6.888nA	3.004V	297mΩ
53	1.622nA	3.113V	291mΩ	1.688nA	3.112V	303mΩ
54	3.819nA	3.088V	300mΩ	3.336nA	2.979V	294mΩ
55	6.905nA	3.066V	299mΩ	0.452nA	3.049V	305mΩ
56	3.846nA	2.985V	297mΩ	0.829nA	3.095V	290mΩ
57	5.219nA	3.050V	306mΩ	6.809nA	3.061V	298mΩ
58	3.354nA	3.108V	303mΩ	4.985nA	2.972V	300mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	2.743nA	3.017V	302mΩ	0.379nA	2.991V	305mΩ
60	6.365nA	3.049V	291mΩ	0.751nA	3.071V	301mΩ
61	0.405nA	3.020V	307mΩ	0.669nA	3.048V	304mΩ
62	7.089nA	3.017V	295mΩ	5.888nA	2.996V	308mΩ
63	0.414nA	2.996V	294mΩ	1.460nA	2.996V	294mΩ
64	6.446nA	3.023V	291mΩ	1.609nA	3.108V	304mΩ
65	4.538nA	2.990V	305mΩ	4.251nA	3.020V	303mΩ
66	5.625nA	3.051V	300mΩ	0.828nA	3.049V	305mΩ
67	1.021nA	3.113V	303mΩ	3.927nA	3.021V	295mΩ
68	6.120nA	2.988V	298mΩ	4.784nA	2.983V	300mΩ
69	0.828nA	3.017V	301mΩ	6.036nA	3.088V	291mΩ
70	1.950nA	3.014V	309mΩ	1.798nA	3.071V	300mΩ
71	0.713nA	2.994V	301mΩ	4.381nA	2.994V	305mΩ
72	1.478nA	3.051V	306mΩ	1.652nA	2.982V	298mΩ
73	2.595nA	3.103V	303mΩ	6.798nA	3.097V	296mΩ
74	5.388nA	3.103V	294mΩ	4.184nA	2.991V	292mΩ
75	2.909nA	3.087V	295mΩ	4.841nA	3.011V	299mΩ
76	6.237nA	2.989V	295mΩ	1.720nA	2.979V	300mΩ
77	3.782nA	3.068V	307mΩ	5.337nA	2.975V	290mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	5.555nA	3.108V	305mΩ	0.613nA	3.101V	304mΩ
2	5.547nA	3.036V	301mΩ	3.139nA	3.073V	301mΩ
3	3.899nA	3.026V	293mΩ	6.312nA	3.012V	303mΩ
4	3.390nA	2.998V	305mΩ	1.864nA	3.040V	305mΩ
5	3.041nA	3.037V	303mΩ	4.766nA	3.028V	308mΩ
6	3.272nA	3.055V	291mΩ	4.102nA	3.036V	300mΩ
7	6.014nA	3.096V	294mΩ	2.647nA	3.047V	293mΩ
8	6.738nA	3.007V	291mΩ	0.389nA	3.072V	301mΩ
9	4.240nA	3.007V	292mΩ	4.946nA	3.010V	295mΩ
10	6.279nA	3.099V	299mΩ	1.976nA	2.982V	294mΩ
11	5.079nA	3.099V	296mΩ	7.104nA	2.989V	293mΩ
12	5.795nA	3.076V	299mΩ	5.591nA	3.028V	307mΩ
13	1.188nA	3.068V	291mΩ	2.162nA	2.975V	294mΩ
14	0.784nA	2.974V	292mΩ	1.722nA	3.033V	292mΩ
15	4.032nA	3.010V	298mΩ	6.725nA	3.064V	294mΩ
16	2.772nA	3.014V	291mΩ	4.623nA	3.063V	300mΩ
17	4.005nA	3.093V	295mΩ	0.457nA	3.099V	303mΩ
18	1.754nA	2.975V	298mΩ	3.291nA	3.068V	298mΩ
19	5.224nA	2.973V	297mΩ	6.401nA	2.980V	298mΩ
20	3.456nA	3.067V	302mΩ	6.684nA	3.042V	297mΩ
21	0.654nA	3.031V	302mΩ	5.168nA	3.082V	306mΩ
22	6.610nA	3.059V	290mΩ	5.329nA	3.018V	297mΩ
23	6.611nA	3.058V	299mΩ	5.535nA	3.078V	293mΩ
24	3.489nA	3.012V	302mΩ	5.491nA	2.991V	299mΩ
25	1.852nA	3.110V	298mΩ	3.241nA	3.024V	298mΩ
26	2.608nA	3.028V	306mΩ	2.658nA	3.085V	306mΩ
27	5.887nA	3.102V	303mΩ	3.961nA	2.986V	300mΩ
28	1.311nA	3.094V	304mΩ	3.964nA	2.997V	300mΩ
29	5.152nA	3.029V	300mΩ	7.233nA	2.986V	291mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
30	5.704nA	3.077V	295mΩ	7.098nA	2.979V	309mΩ
31	2.184nA	3.001V	298mΩ	0.516nA	3.039V	308mΩ
32	3.140nA	2.979V	304mΩ	3.102nA	3.001V	298mΩ
33	4.735nA	2.971V	299mΩ	4.713nA	3.086V	293mΩ
34	6.988nA	3.034V	295mΩ	5.359nA	3.076V	303mΩ
35	5.274nA	3.014V	306mΩ	5.586nA	2.985V	304mΩ
36	5.291nA	3.103V	293mΩ	2.867nA	3.072V	295mΩ
37	1.823nA	2.984V	299mΩ	2.447nA	2.975V	295mΩ
38	0.768nA	2.971V	305mΩ	4.777nA	3.015V	294mΩ
39	1.677nA	3.084V	300mΩ	1.069nA	2.975V	306mΩ
40	3.409nA	3.067V	292mΩ	4.022nA	2.990V	290mΩ
41	3.223nA	3.081V	301mΩ	0.596nA	3.086V	294mΩ
42	7.053nA	3.028V	292mΩ	1.571nA	2.992V	290mΩ
43	3.835nA	3.072V	301mΩ	6.226nA	3.047V	290mΩ
44	1.620nA	2.980V	301mΩ	0.666nA	3.010V	303mΩ
45	5.203nA	3.038V	295mΩ	3.113nA	3.082V	307mΩ
46	4.948nA	3.030V	305mΩ	4.806nA	3.031V	293mΩ
47	0.757nA	3.065V	308mΩ	5.230nA	2.979V	295mΩ
48	4.160nA	2.994V	291mΩ	1.884nA	3.081V	294mΩ
49	1.010nA	3.102V	298mΩ	3.663nA	3.092V	299mΩ
50	3.938nA	3.023V	303mΩ	4.267nA	3.087V	308mΩ
51	3.772nA	2.972V	298mΩ	1.756nA	3.000V	303mΩ
52	2.555nA	2.981V	307mΩ	4.054nA	3.108V	305mΩ
53	7.229nA	2.983V	297mΩ	6.585nA	2.978V	302mΩ
54	6.292nA	2.976V	292mΩ	7.033nA	3.048V	301mΩ
55	3.091nA	3.012V	308mΩ	5.487nA	2.993V	293mΩ
56	4.126nA	3.049V	292mΩ	2.589nA	3.005V	292mΩ
57	2.101nA	2.994V	307mΩ	3.780nA	3.068V	303mΩ
58	6.152nA	3.044V	308mΩ	4.190nA	3.060V	299mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.31 ~ 2015.10.13
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
59	4.630nA	3.093V	304mΩ	2.314nA	3.019V	303mΩ
60	4.597nA	3.054V	302mΩ	3.216nA	3.099V	294mΩ
61	4.281nA	3.093V	309mΩ	2.625nA	3.112V	309mΩ
62	5.784nA	3.048V	299mΩ	5.505nA	3.069V	293mΩ
63	0.611nA	3.092V	298mΩ	3.906nA	3.048V	294mΩ
64	1.857nA	2.979V	293mΩ	1.276nA	3.085V	299mΩ
65	5.796nA	2.986V	303mΩ	4.533nA	3.104V	303mΩ
66	6.519nA	3.086V	293mΩ	3.619nA	3.067V	302mΩ
67	1.025nA	3.031V	304mΩ	1.910nA	3.083V	306mΩ
68	6.940nA	3.030V	296mΩ	5.715nA	3.029V	308mΩ
69	1.430nA	3.113V	295mΩ	3.272nA	2.988V	291mΩ
70	0.648nA	3.032V	292mΩ	1.792nA	3.105V	306mΩ
71	0.939nA	3.085V	295mΩ	1.698nA	2.981V	307mΩ
72	2.755nA	3.069V	308mΩ	6.219nA	3.083V	291mΩ
73	2.964nA	3.064V	296mΩ	4.076nA	3.089V	301mΩ
74	2.041nA	2.990V	301mΩ	5.518nA	2.985V	297mΩ
75	2.655nA	3.077V	303mΩ	7.033nA	3.095V	295mΩ
76	6.177nA	3.098V	304mΩ	0.539nA	3.095V	307mΩ
77	0.771nA	3.053V	305mΩ	1.962nA	3.075V	301mΩ

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T151020-115
Part No : SSD10N20-400D
Test Equipment: JUNO Test System DTS-1000
Test Condition : IDSS < 1μA@VDS=160V ； 1V < VGS(th) < 3.5V@ID=250μA
RDS(ON) < 400mΩ@VGS=10V, ID=4A
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2015.10.17
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$	I_{DSS}	$V_{GS(th)}$	$R_{DS(ON)}$
1	2.373nA	3.051V	292mΩ	6.665nA	2.986V	309mΩ
2	5.559nA	3.042V	309mΩ	5.652nA	3.003V	295mΩ
3	3.068nA	2.999V	298mΩ	6.870nA	3.047V	306mΩ
4	2.840nA	3.071V	297mΩ	1.184nA	2.999V	297mΩ
5	1.288nA	3.102V	307mΩ	0.712nA	3.007V	303mΩ
6	7.129nA	3.017V	292mΩ	0.639nA	3.000V	296mΩ
7	6.307nA	2.977V	297mΩ	2.412nA	3.076V	306mΩ
8	5.244nA	3.096V	294mΩ	3.543nA	3.043V	292mΩ
9	6.623nA	3.025V	307mΩ	2.319nA	3.081V	297mΩ
10	7.135nA	2.981V	298mΩ	0.874nA	2.978V	293mΩ

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