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
2014-08-01C-08	2015/2/1	2014/8/1

PCN Classification	Product Category
Major	SOT-26 Package

Subject

Add a molding vendor

Affected Product(s)

KS05E4. 2SD2045. BC727.

Description of Change(s)

In order to avoid shortage of the material, and enhance the speed of delivery, thus, we add a new vendor.

Content of Change(s)

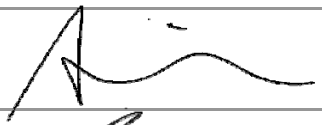
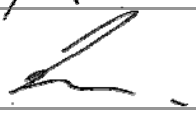
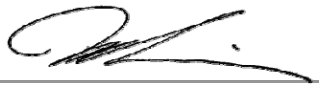
Add Molding vendor--ELER-8-100HFE

Impact(s)

N/A

Attachment(s)

Reliability Teat 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

SeCoS Corporation

Reliability Testing Summary Report

Date: 2014/06/30 Document No.: SH14 -06- 42

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	KS05E4	100 ± 5℃, 100%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	KS05E4	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	KS05E4	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	KS05E4	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	KS05E4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	KS05E4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	KS05E4	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: 2014.05.05 Testing End Date: 2014.06.30

Tester: Leo Hsia Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	V_{BR} (V)	IR (nA)
1	7.354mV	2.165nA
2	7.074mV	2.078nA
3	6.990mV	1.946nA
4	6.981mV	2.090nA
5	7.080mV	2.064nA
6	6.972mV	1.516nA
7	7.374mV	2.094nA
8	7.592mV	1.591nA
9	7.348mV	2.207nA
10	7.182mV	2.574nA
11	7.160mV	1.066nA
12	7.377mV	0.590nA
13	7.181mV	2.625nA
14	7.693mV	1.668nA
15	7.229mV	2.088nA
16	7.624mV	0.375nA
17	7.359mV	0.415nA
18	7.355mV	2.667nA
19	7.221mV	0.959nA
20	7.573mV	2.504nA
21	7.198mV	0.427nA
22	7.347mV	0.515nA
23	7.127mV	1.201nA
24	7.607mV	2.207nA
25	7.683mV	1.574nA
26	7.436mV	1.807nA
27	7.453mV	1.651nA
28	7.266mV	2.643nA
29	7.186mV	1.508nA
30	7.233mV	1.044nA
31	7.121mV	2.576nA

SeCoS Corporation

Electrical Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	V_{BR} (V)	IR (nA)
32	7.678mV	1.957nA
33	7.002mV	1.411nA
34	7.564mV	1.185nA
35	7.307mV	2.155nA
36	7.062mV	2.542nA
37	7.639mV	2.461nA
38	7.443mV	2.040nA
39	7.387mV	2.468nA
40	7.691mV	0.724nA
41	7.533mV	2.293nA
42	7.688mV	2.663nA
43	7.449mV	2.705nA
44	7.501mV	0.591nA
45	7.275mV	1.606nA
46	6.968mV	2.547nA
47	7.240mV	1.732nA
48	7.658mV	0.456nA
49	7.006mV	1.561nA
50	6.991mV	1.548nA
51	7.658mV	0.398nA
52	7.247mV	2.052nA
53	7.069mV	2.549nA
54	7.447mV	1.354nA
55	7.303mV	0.754nA
56	7.427mV	1.617nA
57	7.012mV	1.769nA
58	7.071mV	1.011nA
59	7.347mV	1.196nA
60	7.609mV	1.426nA
61	7.356mV	1.467nA
62	7.298mV	2.564nA

SeCoS Corporation

Electrical Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	V_{BR} (V)	IR (nA)
63	7.395mV	1.234nA
64	7.419mV	1.781nA
65	7.211mV	0.614nA
66	7.668mV	2.210nA
67	7.215mV	0.487nA
68	7.675mV	1.728nA
69	7.314mV	2.267nA
70	7.305mV	0.799nA
71	7.327mV	2.191nA
72	7.065mV	1.684nA
73	7.016mV	1.057nA
74	7.048mV	1.762nA
75	7.564mV	1.680nA
76	7.670mV	2.429nA
77	7.429mV	0.417nA

Made By: Leo Hsia Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.359mV	0.793nA	7.053mV	2.063nA
2	7.601mV	0.808nA	7.236mV	1.154nA
3	7.359mV	0.796nA	7.067mV	0.745nA
4	7.511mV	1.576nA	7.557mV	2.521nA
5	7.701mV	0.500nA	7.320mV	1.470nA
6	7.249mV	0.846nA	7.439mV	1.463nA
7	7.333mV	0.444nA	7.675mV	2.652nA
8	7.106mV	0.780nA	7.398mV	1.243nA
9	7.684mV	2.153nA	7.114mV	2.444nA
10	7.212mV	1.430nA	7.632mV	1.342nA
11	7.170mV	1.905nA	7.548mV	0.847nA
12	6.999mV	1.674nA	7.218mV	0.450nA
13	7.034mV	2.444nA	7.512mV	2.191nA
14	7.254mV	1.089nA	7.321mV	2.582nA
15	7.027mV	2.023nA	7.097mV	0.417nA
16	7.078mV	2.435nA	7.685mV	1.565nA
17	7.006mV	1.494nA	7.041mV	0.978nA
18	7.067mV	1.728nA	7.686mV	2.214nA
19	7.004mV	1.262nA	7.215mV	1.444nA
20	7.550mV	1.637nA	7.131mV	1.518nA
21	7.283mV	2.353nA	7.085mV	2.131nA
22	7.337mV	2.415nA	7.653mV	2.662nA
23	7.283mV	0.976nA	6.967mV	0.408nA
24	7.595mV	1.848nA	7.442mV	0.465nA
25	7.547mV	1.448nA	7.267mV	0.395nA
26	7.329mV	0.399nA	7.443mV	2.551nA
27	7.463mV	2.053nA	7.634mV	2.559nA
28	7.341mV	1.971nA	7.643mV	1.868nA
29	7.358mV	1.752nA	7.466mV	1.494nA
30	7.076mV	1.098nA	6.994mV	1.895nA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.338mV	2.377nA	7.678mV	1.300nA
32	7.053mV	2.331nA	7.543mV	1.546nA
33	7.627mV	1.588nA	7.581mV	0.493nA
34	7.693mV	0.575nA	7.472mV	1.937nA
35	7.225mV	0.641nA	7.137mV	1.440nA
36	7.095mV	0.512nA	7.584mV	1.275nA
37	7.356mV	0.594nA	7.585mV	0.406nA
38	7.245mV	1.304nA	7.585mV	0.723nA
39	7.214mV	1.821nA	7.197mV	1.394nA
40	7.477mV	1.231nA	7.302mV	2.209nA
41	7.422mV	1.360nA	6.985mV	1.665nA
42	7.675mV	1.850nA	7.478mV	1.639nA
43	7.624mV	1.708nA	7.587mV	0.917nA
44	7.083mV	0.668nA	7.552mV	0.829nA
45	7.322mV	1.147nA	7.387mV	0.948nA
46	7.246mV	1.866nA	7.641mV	0.852nA
47	7.276mV	2.706nA	7.492mV	0.553nA
48	7.010mV	2.471nA	7.096mV	0.969nA
49	7.300mV	1.579nA	7.066mV	1.597nA
50	7.639mV	1.228nA	6.972mV	2.370nA
51	7.337mV	1.519nA	7.063mV	1.353nA
52	7.359mV	1.643nA	7.268mV	2.501nA
53	7.284mV	2.518nA	7.503mV	0.538nA
54	7.087mV	2.318nA	7.221mV	0.617nA
55	7.050mV	0.676nA	7.291mV	0.416nA
56	7.424mV	1.505nA	7.415mV	1.423nA
57	7.566mV	1.119nA	7.692mV	0.855nA
58	7.112mV	0.788nA	7.375mV	1.141nA
59	7.102mV	0.662nA	7.632mV	0.825nA
60	7.583mV	1.135nA	7.255mV	2.620nA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.277mV	2.479nA	7.312mV	0.741nA
62	7.351mV	2.387nA	7.336mV	0.958nA
63	7.387mV	2.017nA	7.711mV	0.995nA
64	7.183mV	1.793nA	7.644mV	1.399nA
65	7.397mV	2.704nA	7.511mV	1.570nA
66	7.212mV	0.879nA	7.130mV	2.563nA
67	7.475mV	1.516nA	7.321mV	0.661nA
68	7.103mV	2.074nA	7.597mV	0.371nA
69	6.990mV	1.951nA	7.604mV	2.655nA
70	7.040mV	1.551nA	7.340mV	0.482nA
71	6.985mV	0.752nA	7.259mV	2.115nA
72	7.480mV	0.731nA	7.648mV	1.876nA
73	7.280mV	1.978nA	7.084mV	2.394nA
74	7.315mV	1.355nA	7.407mV	2.473nA
75	7.233mV	0.887nA	7.683mV	1.844nA
76	7.528mV	1.791nA	7.324mV	2.600nA
77	7.198mV	1.886nA	7.368mV	1.856nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.111mV	1.845nA	7.334mV	2.015nA
2	7.314mV	2.532nA	7.386mV	1.031nA
3	7.396mV	0.376nA	7.709mV	1.076nA
4	7.647mV	2.250nA	7.309mV	2.005nA
5	7.610mV	1.220nA	6.976mV	1.119nA
6	7.315mV	1.085nA	7.158mV	1.707nA
7	7.365mV	1.530nA	7.662mV	0.852nA
8	7.644mV	1.960nA	6.988mV	1.059nA
9	7.188mV	0.823nA	7.007mV	1.618nA
10	7.646mV	1.354nA	7.283mV	2.078nA
11	6.999mV	2.195nA	7.383mV	1.388nA
12	7.578mV	1.371nA	7.573mV	0.521nA
13	7.453mV	2.273nA	7.427mV	1.834nA
14	7.621mV	0.589nA	7.149mV	1.393nA
15	7.256mV	1.390nA	7.115mV	1.964nA
16	7.654mV	2.410nA	7.387mV	1.010nA
17	7.143mV	0.585nA	7.157mV	0.779nA
18	7.350mV	1.204nA	7.026mV	1.085nA
19	7.063mV	2.127nA	7.300mV	1.247nA
20	7.219mV	2.158nA	7.301mV	1.585nA
21	7.452mV	1.657nA	7.700mV	1.759nA
22	7.383mV	1.877nA	7.079mV	1.403nA
23	7.250mV	2.227nA	7.059mV	1.925nA
24	7.034mV	1.617nA	6.997mV	1.393nA
25	7.610mV	0.456nA	7.201mV	0.619nA
26	7.549mV	2.362nA	7.476mV	1.811nA
27	7.066mV	1.149nA	7.363mV	0.417nA
28	7.153mV	1.129nA	7.713mV	0.655nA
29	7.243mV	1.714nA	7.359mV	2.644nA
30	7.195mV	0.523nA	7.023mV	2.621nA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.415mV	0.824nA	7.095mV	0.741nA
32	7.267mV	1.421nA	7.042mV	1.923nA
33	7.421mV	1.951nA	7.569mV	2.032nA
34	7.543mV	0.822nA	7.668mV	0.555nA
35	7.530mV	1.037nA	7.359mV	0.477nA
36	7.168mV	1.846nA	7.015mV	1.601nA
37	7.169mV	2.262nA	7.436mV	1.898nA
38	7.346mV	1.589nA	7.589mV	1.085nA
39	7.111mV	0.501nA	7.134mV	1.062nA
40	7.484mV	0.769nA	7.405mV	1.062nA
41	6.966mV	0.463nA	7.639mV	0.393nA
42	7.202mV	0.951nA	7.381mV	0.494nA
43	7.088mV	0.873nA	7.617mV	0.478nA
44	7.084mV	1.190nA	7.418mV	2.261nA
45	7.504mV	1.880nA	7.162mV	0.541nA
46	7.344mV	0.974nA	7.676mV	1.171nA
47	7.321mV	1.564nA	7.609mV	2.173nA
48	6.977mV	1.354nA	7.079mV	2.411nA
49	7.001mV	2.476nA	7.278mV	2.336nA
50	7.449mV	2.278nA	7.012mV	1.361nA
51	7.087mV	0.544nA	7.202mV	0.508nA
52	7.309mV	1.947nA	7.015mV	1.920nA
53	7.183mV	2.161nA	7.124mV	1.166nA
54	7.719mV	2.609nA	7.479mV	1.867nA
55	7.096mV	0.903nA	7.640mV	1.277nA
56	7.452mV	1.551nA	7.427mV	0.820nA
57	7.536mV	1.211nA	7.445mV	1.102nA
58	7.222mV	1.284nA	7.298mV	1.119nA
59	7.035mV	1.472nA	7.643mV	0.787nA
60	7.284mV	1.316nA	7.067mV	2.433nA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.200mV	0.526nA	7.385mV	0.867nA
62	7.569mV	1.634nA	7.302mV	1.549nA
63	7.630mV	0.966nA	7.480mV	2.465nA
64	7.338mV	0.924nA	7.129mV	1.789nA
65	7.629mV	0.389nA	7.646mV	1.518nA
66	7.129mV	1.459nA	7.326mV	1.556nA
67	7.144mV	1.667nA	7.004mV	1.888nA
68	7.045mV	2.595nA	7.663mV	2.502nA
69	7.304mV	0.435nA	7.270mV	2.409nA
70	7.592mV	1.045nA	6.988mV	0.450nA
71	7.383mV	1.146nA	7.268mV	1.636nA
72	7.378mV	2.196nA	7.299mV	2.413nA
73	7.004mV	2.372nA	7.622mV	2.479nA
74	7.615mV	0.969nA	7.561mV	0.522nA
75	7.419mV	1.466nA	7.138mV	2.356nA
76	7.470mV	2.527nA	7.375mV	2.570nA
77	7.408mV	2.150nA	7.196mV	1.893nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.429mV	1.232nA	7.639mV	1.369nA
2	7.562mV	0.496nA	7.102mV	2.195nA
3	7.441mV	1.071nA	7.352mV	0.626nA
4	7.007mV	0.725nA	7.589mV	0.675nA
5	7.279mV	1.110nA	7.689mV	0.654nA
6	7.116mV	1.259nA	7.183mV	0.989nA
7	7.274mV	2.323nA	7.018mV	2.687nA
8	7.426mV	2.623nA	7.297mV	2.408nA
9	7.002mV	1.307nA	7.130mV	1.008nA
10	7.664mV	1.774nA	7.222mV	1.106nA
11	7.526mV	0.552nA	7.645mV	0.930nA
12	7.574mV	1.490nA	7.285mV	0.847nA
13	7.343mV	2.504nA	7.348mV	0.666nA
14	7.629mV	1.420nA	7.004mV	1.139nA
15	7.237mV	1.044nA	7.046mV	2.685nA
16	7.507mV	0.763nA	7.253mV	0.431nA
17	7.441mV	1.871nA	7.620mV	0.386nA
18	7.485mV	1.689nA	7.455mV	1.366nA
19	7.282mV	1.009nA	7.066mV	0.937nA
20	7.321mV	2.271nA	6.975mV	2.313nA
21	7.564mV	1.745nA	7.474mV	1.534nA
22	7.457mV	2.535nA	7.242mV	1.053nA
23	7.488mV	2.210nA	7.264mV	2.342nA
24	7.191mV	1.411nA	7.155mV	2.543nA
25	7.684mV	1.084nA	7.552mV	1.897nA
26	7.250mV	2.392nA	7.517mV	1.814nA
27	7.006mV	0.646nA	7.198mV	1.339nA
28	7.658mV	2.579nA	7.142mV	0.652nA
29	7.143mV	2.442nA	7.559mV	0.847nA
30	7.398mV	1.551nA	7.441mV	0.892nA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.328mV	1.860nA	7.547mV	2.287nA
32	7.612mV	2.152nA	7.109mV	1.458nA
33	7.677mV	1.961nA	7.646mV	0.421nA
34	7.019mV	0.366nA	6.976mV	0.922nA
35	6.970mV	0.702nA	7.060mV	2.455nA
36	7.246mV	1.474nA	7.501mV	0.377nA
37	7.303mV	2.455nA	7.082mV	2.438nA
38	7.265mV	2.702nA	7.517mV	2.271nA
39	7.510mV	1.042nA	7.658mV	0.383nA
40	7.591mV	1.865nA	7.332mV	0.479nA
41	7.551mV	0.510nA	7.408mV	1.977nA
42	7.230mV	0.370nA	7.356mV	1.410nA
43	7.283mV	0.790nA	7.370mV	1.135nA
44	7.200mV	1.455nA	7.625mV	2.439nA
45	7.057mV	0.620nA	7.231mV	1.398nA
46	7.636mV	1.525nA	7.119mV	0.400nA
47	7.016mV	0.657nA	7.121mV	1.880nA
48	7.280mV	0.502nA	7.015mV	2.264nA
49	7.700mV	2.000nA	7.033mV	1.094nA
50	6.966mV	0.661nA	7.196mV	2.384nA
51	7.573mV	1.426nA	7.177mV	2.561nA
52	7.106mV	2.273nA	6.967mV	0.977nA
53	7.213mV	0.921nA	7.440mV	0.510nA
54	7.719mV	1.861nA	7.171mV	1.610nA
55	7.109mV	1.049nA	6.978mV	0.875nA
56	7.259mV	0.417nA	7.296mV	0.467nA
57	7.554mV	0.828nA	7.691mV	1.461nA
58	7.684mV	1.299nA	7.394mV	2.568nA
59	7.579mV	2.456nA	7.138mV	1.426nA
60	7.502mV	0.539nA	7.077mV	1.295nA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.329mV	2.571nA	7.098mV	2.521nA
62	7.651mV	0.439nA	7.459mV	0.839nA
63	7.614mV	0.666nA	7.142mV	1.409nA
64	7.317mV	1.888nA	7.582mV	0.780nA
65	7.025mV	1.714nA	7.033mV	2.104nA
66	7.221mV	1.774nA	7.557mV	2.226nA
67	7.340mV	1.136nA	7.165mV	1.834nA
68	6.967mV	0.835nA	7.497mV	2.692nA
69	7.103mV	2.185nA	7.135mV	2.113nA
70	7.049mV	0.476nA	7.139mV	1.739nA
71	7.089mV	1.868nA	7.437mV	0.929nA
72	6.995mV	1.088nA	7.663mV	1.378nA
73	7.234mV	1.481nA	7.170mV	2.340nA
74	7.072mV	0.365nA	7.569mV	1.067nA
75	7.074mV	1.866nA	7.205mV	0.494nA
76	7.272mV	0.653nA	7.229mV	1.627nA
77	7.561mV	1.858nA	7.092mV	0.972nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.311mV	2.193nA	7.415mV	2.681nA
2	7.605mV	0.659nA	7.052mV	0.558nA
3	7.561mV	1.021nA	7.366mV	1.471nA
4	7.308mV	2.496nA	7.584mV	0.664nA
5	7.411mV	1.710nA	7.531mV	2.221nA
6	7.228mV	2.434nA	7.537mV	0.672nA
7	7.523mV	0.366nA	7.056mV	2.543nA
8	7.685mV	0.773nA	7.592mV	1.141nA
9	7.395mV	1.945nA	7.543mV	2.677nA
10	7.551mV	0.916nA	7.332mV	1.642nA
11	7.012mV	2.286nA	7.409mV	0.873nA
12	7.029mV	1.558nA	7.618mV	1.409nA
13	7.269mV	1.545nA	7.435mV	1.078nA
14	7.160mV	0.896nA	7.111mV	0.750nA
15	7.135mV	1.634nA	7.124mV	0.685nA
16	7.047mV	1.913nA	7.649mV	2.650nA
17	7.157mV	1.627nA	7.216mV	0.743nA
18	7.256mV	1.986nA	7.392mV	1.690nA
19	7.613mV	0.693nA	7.402mV	2.650nA
20	7.369mV	2.381nA	7.499mV	2.234nA
21	7.015mV	1.305nA	7.674mV	1.109nA
22	7.614mV	2.683nA	7.094mV	1.331nA
23	7.596mV	1.488nA	7.201mV	1.249nA
24	7.002mV	0.578nA	7.395mV	1.371nA
25	7.709mV	2.647nA	7.483mV	1.800nA
26	7.483mV	1.360nA	7.031mV	2.656nA
27	7.676mV	2.319nA	7.083mV	2.582nA
28	7.237mV	1.143nA	7.147mV	1.046nA
29	7.188mV	0.706nA	7.542mV	1.793nA
30	7.440mV	2.587nA	7.664mV	2.640nA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.323mV	0.802nA	7.416mV	1.412nA
32	7.698mV	1.203nA	7.421mV	2.064nA
33	7.270mV	0.979nA	7.630mV	1.865nA
34	7.428mV	1.737nA	7.139mV	2.534nA
35	6.991mV	1.429nA	6.999mV	1.354nA
36	7.243mV	1.261nA	7.285mV	1.080nA
37	7.056mV	2.030nA	7.039mV	1.480nA
38	7.237mV	1.830nA	7.358mV	0.367nA
39	7.432mV	1.654nA	7.114mV	1.683nA
40	6.988mV	2.604nA	7.491mV	2.287nA
41	7.083mV	1.972nA	7.060mV	0.757nA
42	7.003mV	2.156nA	7.286mV	1.260nA
43	6.980mV	0.906nA	7.373mV	2.133nA
44	7.602mV	2.265nA	7.487mV	2.610nA
45	7.585mV	1.676nA	7.226mV	1.997nA
46	7.237mV	0.438nA	7.506mV	1.715nA
47	7.340mV	1.578nA	7.619mV	2.092nA
48	7.318mV	2.089nA	7.399mV	2.325nA
49	7.339mV	1.861nA	7.140mV	0.636nA
50	7.228mV	1.381nA	7.391mV	0.398nA
51	7.495mV	1.066nA	7.670mV	1.221nA
52	7.474mV	2.208nA	7.181mV	2.120nA
53	7.401mV	2.359nA	7.630mV	1.531nA
54	7.688mV	2.232nA	7.471mV	1.684nA
55	7.578mV	0.969nA	7.061mV	2.184nA
56	7.418mV	2.566nA	7.597mV	1.729nA
57	7.339mV	0.460nA	7.031mV	1.258nA
58	7.513mV	2.018nA	7.476mV	2.140nA
59	7.491mV	2.238nA	7.184mV	2.138nA
60	7.219mV	1.414nA	7.094mV	1.332nA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.318mV	0.895nA	7.558mV	1.453nA
62	7.240mV	2.019nA	7.478mV	1.769nA
63	7.131mV	2.614nA	7.421mV	0.700nA
64	7.329mV	1.465nA	7.228mV	1.995nA
65	7.086mV	0.927nA	7.528mV	0.428nA
66	7.232mV	0.503nA	7.472mV	0.942nA
67	7.493mV	1.601nA	6.980mV	0.589nA
68	7.242mV	0.790nA	7.195mV	0.724nA
69	7.047mV	2.405nA	7.297mV	1.157nA
70	7.529mV	1.929nA	6.979mV	0.457nA
71	7.227mV	1.153nA	7.002mV	2.239nA
72	7.419mV	0.530nA	7.279mV	1.702nA
73	7.513mV	1.734nA	7.438mV	1.108nA
74	7.313mV	2.507nA	7.675mV	0.501nA
75	7.214mV	1.275nA	7.113mV	1.277nA
76	7.055mV	2.339nA	7.224mV	0.642nA
77	6.973mV	0.721nA	7.677mV	0.954nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.605mV	0.623nA	7.089mV	0.945nA
2	7.203mV	1.798nA	7.229mV	2.290nA
3	7.310mV	1.348nA	7.056mV	2.486nA
4	7.588mV	2.090nA	6.984mV	0.567nA
5	7.199mV	1.849nA	7.092mV	2.666nA
6	7.589mV	0.836nA	7.270mV	2.350nA
7	7.680mV	1.352nA	7.342mV	1.405nA
8	7.386mV	0.715nA	7.092mV	0.549nA
9	7.087mV	2.169nA	7.072mV	1.628nA
10	7.156mV	2.618nA	7.088mV	1.779nA
11	7.212mV	0.759nA	7.308mV	1.103nA
12	7.031mV	1.431nA	7.400mV	2.490nA
13	7.431mV	1.634nA	7.359mV	2.566nA
14	7.022mV	2.635nA	6.992mV	0.708nA
15	7.344mV	1.293nA	7.641mV	1.431nA
16	7.003mV	2.006nA	7.478mV	1.603nA
17	7.064mV	1.582nA	7.363mV	1.280nA
18	7.660mV	0.780nA	7.047mV	1.078nA
19	7.048mV	2.280nA	7.388mV	1.364nA
20	7.709mV	1.497nA	7.104mV	0.732nA
21	7.271mV	2.513nA	7.427mV	0.672nA
22	7.362mV	1.494nA	6.985mV	1.035nA
23	7.350mV	2.299nA	7.041mV	1.999nA
24	7.604mV	1.825nA	6.981mV	0.978nA
25	6.970mV	2.610nA	7.400mV	1.458nA
26	7.371mV	0.438nA	7.324mV	1.119nA
27	7.126mV	2.017nA	7.321mV	2.095nA
28	7.123mV	0.665nA	7.636mV	1.921nA
29	7.520mV	1.653nA	7.288mV	1.371nA
30	7.520mV	0.530nA	7.005mV	2.557nA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.329mV	2.060nA	7.102mV	2.053nA
32	7.682mV	2.151nA	7.247mV	2.281nA
33	7.202mV	0.486nA	7.580mV	1.999nA
34	7.260mV	1.700nA	7.379mV	2.304nA
35	7.599mV	2.676nA	7.045mV	2.671nA
36	7.558mV	1.429nA	7.233mV	1.152nA
37	7.262mV	2.662nA	6.968mV	0.662nA
38	7.256mV	1.283nA	7.230mV	2.376nA
39	7.449mV	2.018nA	7.479mV	2.447nA
40	7.708mV	2.168nA	7.188mV	1.790nA
41	7.522mV	2.030nA	7.609mV	0.786nA
42	7.518mV	1.084nA	7.011mV	1.458nA
43	7.060mV	1.582nA	7.523mV	1.702nA
44	7.060mV	2.057nA	7.372mV	1.975nA
45	7.065mV	0.699nA	7.000mV	1.438nA
46	7.196mV	1.806nA	7.081mV	0.467nA
47	7.145mV	2.100nA	7.262mV	2.364nA
48	7.113mV	0.766nA	7.181mV	1.479nA
49	7.351mV	2.280nA	7.117mV	1.082nA
50	7.068mV	0.850nA	7.635mV	2.407nA
51	7.597mV	1.970nA	7.075mV	1.543nA
52	7.004mV	1.440nA	7.669mV	0.780nA
53	7.038mV	1.044nA	7.524mV	0.414nA
54	6.986mV	0.959nA	7.033mV	1.082nA
55	7.703mV	1.733nA	7.508mV	2.194nA
56	7.462mV	0.431nA	7.503mV	1.059nA
57	7.057mV	2.697nA	7.620mV	2.040nA
58	7.171mV	2.553nA	7.375mV	0.662nA
59	7.205mV	0.400nA	7.471mV	2.345nA
60	7.207mV	1.370nA	6.972mV	0.729nA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.415mV	2.010nA	7.123mV	0.366nA
62	7.536mV	1.331nA	7.108mV	2.146nA
63	7.166mV	1.106nA	7.229mV	2.585nA
64	7.379mV	1.973nA	7.500mV	1.902nA
65	7.082mV	0.574nA	7.201mV	2.115nA
66	7.543mV	1.421nA	7.607mV	1.040nA
67	7.159mV	1.926nA	7.504mV	1.539nA
68	7.605mV	2.355nA	7.192mV	1.123nA
69	7.181mV	0.958nA	7.361mV	1.963nA
70	7.654mV	1.027nA	7.624mV	1.131nA
71	7.122mV	0.949nA	7.085mV	0.924nA
72	6.975mV	2.107nA	7.009mV	1.589nA
73	7.260mV	0.913nA	7.614mV	1.463nA
74	7.516mV	0.893nA	7.320mV	1.013nA
75	7.396mV	1.448nA	7.115mV	1.056nA
76	7.138mV	2.301nA	6.975mV	0.397nA
77	7.335mV	1.285nA	7.706mV	1.211nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.212mV	1.303nA	7.173mV	1.103nA
2	7.627mV	1.181nA	7.204mV	1.352nA
3	7.456mV	1.684nA	7.424mV	2.319nA
4	7.533mV	2.409nA	7.121mV	1.592nA
5	7.546mV	1.359nA	7.437mV	2.137nA
6	7.434mV	1.043nA	7.426mV	2.144nA
7	7.562mV	2.657nA	7.061mV	0.675nA
8	7.468mV	1.306nA	7.278mV	2.350nA
9	7.034mV	0.374nA	7.673mV	1.497nA
10	7.350mV	2.577nA	7.348mV	1.297nA
11	7.611mV	1.328nA	7.434mV	1.197nA
12	7.360mV	1.577nA	6.989mV	2.627nA
13	6.976mV	0.479nA	7.276mV	1.557nA
14	7.032mV	2.032nA	7.057mV	2.371nA
15	7.307mV	1.063nA	7.268mV	2.410nA
16	7.123mV	1.704nA	7.360mV	2.195nA
17	7.511mV	0.620nA	7.131mV	1.840nA
18	7.136mV	2.539nA	7.439mV	2.212nA
19	7.123mV	1.747nA	7.624mV	1.459nA
20	6.984mV	1.030nA	7.108mV	2.403nA
21	7.520mV	0.701nA	7.321mV	2.082nA
22	7.057mV	0.521nA	7.107mV	1.862nA
23	7.010mV	0.831nA	7.658mV	0.737nA
24	7.626mV	1.559nA	7.571mV	1.630nA
25	7.154mV	2.600nA	7.404mV	1.999nA
26	7.560mV	2.380nA	7.133mV	1.391nA
27	7.271mV	0.728nA	7.229mV	1.461nA
28	7.229mV	1.122nA	6.968mV	2.087nA
29	7.077mV	2.157nA	7.369mV	2.159nA
30	7.400mV	0.859nA	7.454mV	1.264nA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
31	7.163mV	2.157nA	7.107mV	1.112nA
32	7.084mV	2.596nA	7.407mV	1.417nA
33	7.077mV	2.678nA	7.575mV	1.392nA
34	7.073mV	1.847nA	7.264mV	2.080nA
35	7.412mV	1.345nA	7.553mV	0.878nA
36	7.717mV	1.455nA	7.221mV	0.627nA
37	7.102mV	2.631nA	7.219mV	0.749nA
38	7.249mV	1.107nA	7.016mV	1.774nA
39	7.499mV	0.925nA	7.145mV	2.411nA
40	7.415mV	1.010nA	7.527mV	2.103nA
41	7.275mV	1.215nA	7.530mV	0.737nA
42	7.673mV	0.887nA	7.352mV	0.497nA
43	7.477mV	0.673nA	7.521mV	1.764nA
44	7.601mV	0.393nA	7.688mV	1.369nA
45	7.448mV	1.218nA	7.649mV	0.939nA
46	7.222mV	1.900nA	7.667mV	2.237nA
47	7.718mV	2.707nA	7.320mV	1.022nA
48	7.073mV	1.049nA	7.497mV	2.706nA
49	7.647mV	2.584nA	6.980mV	2.392nA
50	7.334mV	2.018nA	7.415mV	1.195nA
51	7.278mV	0.957nA	7.551mV	2.374nA
52	7.430mV	1.688nA	7.376mV	0.460nA
53	7.608mV	1.996nA	7.003mV	0.879nA
54	7.616mV	2.655nA	7.147mV	2.609nA
55	7.290mV	1.953nA	6.978mV	2.426nA
56	7.032mV	2.441nA	7.457mV	1.574nA
57	7.286mV	0.829nA	7.549mV	1.979nA
58	7.236mV	1.023nA	7.563mV	1.377nA
59	6.976mV	0.517nA	7.136mV	1.312nA
60	7.208mV	1.357nA	7.189mV	2.542nA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
61	7.496mV	1.584nA	7.127mV	0.764nA
62	7.399mV	2.060nA	7.154mV	1.663nA
63	7.609mV	1.659nA	7.220mV	1.569nA
64	7.179mV	1.241nA	7.523mV	1.760nA
65	7.309mV	1.910nA	7.598mV	0.732nA
66	7.534mV	0.608nA	7.320mV	0.570nA
67	7.337mV	1.904nA	6.999mV	2.134nA
68	6.998mV	1.629nA	7.452mV	0.649nA
69	7.004mV	1.553nA	7.095mV	2.388nA
70	7.550mV	1.113nA	7.430mV	1.445nA
71	7.030mV	2.161nA	7.222mV	0.718nA
72	7.158mV	2.563nA	7.555mV	2.176nA
73	7.482mV	1.187nA	7.163mV	1.030nA
74	7.293mV	1.531nA	7.518mV	0.371nA
75	7.279mV	2.091nA	7.006mV	2.246nA
76	7.701mV	1.621nA	6.980mV	0.987nA
77	7.014mV	1.130nA	7.598mV	0.679nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T140630-042
Part No : KS05E4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>9V@I1=1mA, IR<100nA@VR=3V
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2014.06.28 ~ 2014.06.28
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before		After	
No	V_{BR} (V)	IR (nA)	V_{BR} (V)	IR (nA)
1	7.646mV	0.939nA	7.427mV	2.274nA
2	7.642mV	0.701nA	7.255mV	0.552nA
3	7.583mV	1.751nA	7.508mV	1.434nA
4	7.684mV	2.162nA	7.699mV	1.601nA
5	7.316mV	1.986nA	7.464mV	0.423nA
6	7.133mV	2.660nA	7.066mV	2.553nA
7	7.682mV	2.339nA	7.198mV	0.461nA
8	7.241mV	0.719nA	7.169mV	1.356nA
9	7.064mV	0.862nA	7.327mV	2.641nA
10	7.429mV	0.493nA	7.151mV	1.949nA

Made By: Leo Hsia

Approval: Peter Yang