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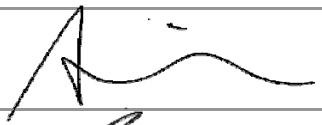
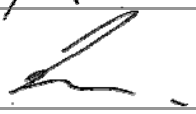
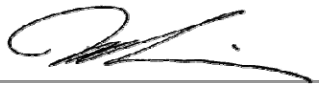
Product/Process Change Notification

PCN#	Effective Date	Issue Date
2014-08-01C-12	2015/2/1	2014/8/1
PCN Classification	Product Category	
Major	SOT-143 Package	
Subject		
Add a molding vendor		
Affected Product(s)		
KS05B3. KS05B4. KS05BL4.		
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- 41

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	KS05B4	100 ± 5℃, 100%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	KS05B4	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	KS05B4	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	KS05B4	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	KS05B4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	KS05B4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	KS05B4	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 : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.265mV	0.763nA
2	6.843mV	2.325nA
3	7.326mV	2.208nA
4	6.791mV	1.940nA
5	6.985mV	1.245nA
6	7.159mV	1.575nA
7	6.809mV	1.613nA
8	6.899mV	0.364nA
9	6.764mV	2.609nA
10	7.405mV	0.442nA
11	6.870mV	0.872nA
12	7.199mV	1.656nA
13	7.072mV	1.353nA
14	6.980mV	2.489nA
15	6.774mV	2.655nA
16	6.960mV	2.024nA
17	7.101mV	1.998nA
18	7.425mV	0.835nA
19	7.515mV	2.341nA
20	7.338mV	2.088nA
21	7.449mV	0.371nA
22	6.859mV	0.530nA
23	6.824mV	1.351nA
24	6.768mV	2.704nA
25	6.959mV	2.726nA
26	6.989mV	1.816nA
27	7.106mV	1.197nA
28	7.324mV	1.352nA
29	7.512mV	1.591nA
30	7.086mV	0.566nA
31	6.882mV	1.964nA

SeCoS Corporation

Electrical Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.953mV	1.625nA
33	7.379mV	2.593nA
34	7.444mV	0.468nA
35	7.001mV	1.426nA
36	7.318mV	2.204nA
37	7.348mV	1.112nA
38	7.383mV	1.900nA
39	6.863mV	2.579nA
40	6.836mV	2.573nA
41	7.531mV	0.355nA
42	6.882mV	2.356nA
43	6.820mV	1.533nA
44	6.774mV	0.402nA
45	7.213mV	1.640nA
46	6.894mV	1.307nA
47	6.793mV	1.631nA
48	7.444mV	1.891nA
49	7.011mV	2.762nA
50	7.475mV	2.399nA
51	6.890mV	2.607nA
52	7.130mV	1.996nA
53	6.811mV	1.438nA
54	6.770mV	2.341nA
55	6.840mV	2.064nA
56	7.503mV	1.940nA
57	7.064mV	1.827nA
58	7.150mV	0.424nA
59	6.997mV	0.931nA
60	7.338mV	2.009nA
61	7.022mV	0.694nA
62	7.147mV	1.124nA

SeCoS Corporation

Electrical Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.281mV	1.171nA
64	6.855mV	2.181nA
65	7.033mV	0.949nA
66	7.425mV	0.528nA
67	6.820mV	1.728nA
68	7.246mV	0.903nA
69	7.321mV	1.376nA
70	7.309mV	2.719nA
71	7.524mV	0.454nA
72	6.811mV	1.715nA
73	7.110mV	1.033nA
74	7.386mV	0.876nA
75	7.086mV	0.384nA
76	7.227mV	1.239nA
77	7.362mV	0.618nA

Made By: Leo Hsia Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.088mV	0.712nA	7.258mV	2.643nA
2	7.075mV	1.331nA	7.368mV	1.969nA
3	7.226mV	1.663nA	7.121mV	1.927nA
4	7.090mV	0.382nA	7.311mV	2.557nA
5	7.528mV	1.216nA	7.242mV	0.505nA
6	7.114mV	1.376nA	7.271mV	1.820nA
7	6.867mV	2.712nA	7.247mV	1.049nA
8	7.147mV	2.781nA	7.502mV	0.874nA
9	7.209mV	1.485nA	7.447mV	0.875nA
10	7.408mV	1.327nA	6.799mV	1.200nA
11	6.935mV	1.707nA	7.241mV	1.112nA
12	7.486mV	0.673nA	6.856mV	0.898nA
13	7.082mV	1.523nA	7.329mV	2.392nA
14	6.831mV	1.081nA	7.204mV	0.502nA
15	6.992mV	2.143nA	7.002mV	2.221nA
16	6.807mV	1.425nA	7.421mV	2.714nA
17	6.964mV	2.032nA	7.496mV	1.495nA
18	7.245mV	0.697nA	6.913mV	1.958nA
19	7.047mV	1.566nA	7.036mV	2.522nA
20	7.466mV	2.012nA	7.048mV	0.644nA
21	6.944mV	2.594nA	7.050mV	1.597nA
22	7.064mV	1.376nA	6.862mV	1.825nA
23	7.240mV	2.597nA	7.036mV	2.196nA
24	7.043mV	2.325nA	6.919mV	2.149nA
25	6.891mV	0.355nA	7.182mV	2.150nA
26	7.324mV	1.562nA	7.314mV	1.810nA
27	7.379mV	2.678nA	6.927mV	1.924nA
28	7.114mV	0.446nA	7.141mV	2.218nA
29	7.413mV	1.090nA	6.852mV	0.403nA
30	7.505mV	1.735nA	6.828mV	2.736nA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.809mV	2.416nA	7.291mV	1.900nA
32	6.767mV	2.573nA	7.074mV	1.123nA
33	7.206mV	1.165nA	7.357mV	0.711nA
34	7.256mV	1.171nA	7.527mV	2.004nA
35	7.222mV	2.076nA	7.131mV	0.872nA
36	7.217mV	2.055nA	6.920mV	1.699nA
37	7.523mV	2.395nA	7.224mV	2.319nA
38	7.346mV	1.390nA	7.310mV	1.339nA
39	7.196mV	0.933nA	6.789mV	1.819nA
40	7.267mV	1.208nA	6.897mV	1.720nA
41	7.287mV	1.492nA	7.390mV	1.985nA
42	6.943mV	2.471nA	7.084mV	2.353nA
43	6.794mV	2.682nA	7.258mV	2.284nA
44	7.337mV	0.571nA	6.845mV	0.726nA
45	7.359mV	0.504nA	6.820mV	0.743nA
46	6.856mV	0.885nA	6.817mV	1.079nA
47	7.430mV	1.552nA	6.845mV	1.257nA
48	6.910mV	2.031nA	6.760mV	0.738nA
49	6.775mV	1.310nA	6.870mV	0.641nA
50	7.346mV	1.380nA	7.312mV	2.372nA
51	7.427mV	2.122nA	6.871mV	0.925nA
52	7.205mV	0.434nA	6.769mV	1.439nA
53	7.385mV	2.109nA	6.812mV	2.430nA
54	6.984mV	2.586nA	7.073mV	1.985nA
55	7.413mV	2.622nA	7.121mV	0.428nA
56	6.983mV	2.116nA	7.267mV	1.187nA
57	6.862mV	0.754nA	7.042mV	1.156nA
58	7.518mV	0.553nA	7.462mV	2.134nA
59	7.360mV	2.293nA	7.180mV	1.416nA
60	7.530mV	2.809nA	6.829mV	1.268nA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.410mV	2.203nA	7.404mV	1.498nA
62	6.776mV	0.659nA	7.220mV	2.407nA
63	7.319mV	1.760nA	7.076mV	2.380nA
64	7.393mV	2.460nA	6.798mV	1.106nA
65	6.921mV	1.229nA	7.247mV	1.397nA
66	7.110mV	0.576nA	7.337mV	0.500nA
67	7.266mV	1.806nA	6.996mV	1.388nA
68	6.817mV	2.158nA	7.372mV	1.774nA
69	6.929mV	2.442nA	7.364mV	2.680nA
70	7.044mV	1.936nA	7.077mV	2.583nA
71	7.094mV	0.411nA	6.862mV	1.467nA
72	7.155mV	1.615nA	7.136mV	1.649nA
73	6.780mV	1.305nA	7.181mV	1.445nA
74	7.171mV	2.281nA	7.049mV	1.202nA
75	7.058mV	2.730nA	7.054mV	0.508nA
76	6.835mV	1.392nA	7.201mV	1.972nA
77	7.454mV	1.974nA	6.792mV	1.067nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.868mV	0.418nA	7.291mV	2.152nA
2	7.272mV	2.500nA	7.499mV	0.763nA
3	6.973mV	2.563nA	6.808mV	1.081nA
4	6.837mV	1.147nA	7.251mV	1.704nA
5	7.305mV	2.615nA	7.340mV	0.995nA
6	7.324mV	0.492nA	6.984mV	2.637nA
7	7.410mV	2.676nA	7.510mV	0.681nA
8	7.000mV	1.724nA	7.481mV	1.987nA
9	7.116mV	2.305nA	7.208mV	1.130nA
10	6.999mV	1.012nA	6.831mV	1.344nA
11	7.178mV	2.240nA	6.878mV	1.322nA
12	6.900mV	2.291nA	6.912mV	1.168nA
13	6.918mV	2.270nA	7.232mV	0.765nA
14	7.217mV	2.567nA	7.413mV	0.428nA
15	6.899mV	2.378nA	6.950mV	1.710nA
16	7.327mV	0.898nA	6.969mV	1.582nA
17	7.512mV	2.109nA	7.509mV	1.365nA
18	7.356mV	2.411nA	7.200mV	1.178nA
19	6.899mV	2.111nA	7.471mV	2.110nA
20	7.361mV	2.609nA	7.304mV	0.797nA
21	6.917mV	1.006nA	6.790mV	0.833nA
22	7.272mV	0.812nA	6.939mV	1.888nA
23	7.033mV	0.384nA	7.025mV	1.555nA
24	6.819mV	1.921nA	7.510mV	1.288nA
25	7.446mV	2.501nA	7.492mV	1.318nA
26	7.365mV	2.119nA	6.912mV	2.770nA
27	7.207mV	1.223nA	7.333mV	1.208nA
28	7.011mV	1.020nA	6.772mV	0.773nA
29	7.168mV	2.611nA	7.452mV	1.420nA
30	7.382mV	1.868nA	6.883mV	2.292nA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.204mV	1.901nA	7.205mV	0.820nA
32	7.243mV	1.673nA	7.169mV	2.391nA
33	7.139mV	1.472nA	7.235mV	1.347nA
34	7.528mV	2.141nA	7.470mV	0.902nA
35	6.813mV	0.840nA	7.130mV	1.470nA
36	6.937mV	1.239nA	7.185mV	0.711nA
37	7.159mV	0.744nA	7.442mV	2.476nA
38	6.851mV	2.379nA	7.474mV	2.441nA
39	6.987mV	1.924nA	7.340mV	2.133nA
40	7.041mV	1.582nA	6.998mV	1.057nA
41	7.430mV	1.132nA	7.281mV	0.848nA
42	6.908mV	2.438nA	7.329mV	2.099nA
43	7.315mV	0.480nA	6.997mV	2.627nA
44	6.760mV	1.319nA	7.534mV	2.190nA
45	6.759mV	2.734nA	7.001mV	1.807nA
46	6.909mV	1.702nA	7.361mV	1.584nA
47	7.045mV	0.835nA	7.282mV	2.243nA
48	7.230mV	1.259nA	7.172mV	2.369nA
49	7.266mV	0.789nA	7.165mV	2.428nA
50	7.363mV	2.564nA	7.272mV	2.409nA
51	7.152mV	0.650nA	6.793mV	1.239nA
52	7.012mV	1.898nA	6.861mV	2.687nA
53	7.314mV	0.495nA	7.269mV	2.675nA
54	7.530mV	1.115nA	7.326mV	2.573nA
55	6.865mV	1.840nA	7.016mV	1.517nA
56	7.098mV	1.851nA	6.879mV	1.939nA
57	6.863mV	2.098nA	7.008mV	1.152nA
58	7.521mV	2.713nA	7.524mV	1.780nA
59	7.525mV	2.074nA	7.152mV	0.572nA
60	7.508mV	0.732nA	7.413mV	2.343nA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.351mV	2.744nA	7.127mV	0.420nA
62	7.184mV	2.339nA	6.926mV	1.100nA
63	7.000mV	1.463nA	6.969mV	1.691nA
64	6.864mV	1.155nA	6.918mV	0.429nA
65	7.425mV	0.592nA	7.016mV	2.541nA
66	7.456mV	2.152nA	6.775mV	1.184nA
67	6.787mV	1.843nA	7.524mV	1.191nA
68	7.026mV	2.497nA	7.170mV	1.112nA
69	6.809mV	0.373nA	7.448mV	0.339nA
70	6.923mV	2.277nA	7.128mV	0.653nA
71	7.491mV	2.550nA	7.075mV	0.565nA
72	6.832mV	0.657nA	6.880mV	2.773nA
73	7.182mV	1.549nA	6.912mV	1.322nA
74	7.291mV	1.056nA	7.372mV	1.435nA
75	7.383mV	2.433nA	6.857mV	2.324nA
76	6.774mV	1.550nA	7.090mV	1.466nA
77	7.081mV	1.603nA	7.410mV	0.361nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.782mV	1.736nA	7.371mV	2.401nA
2	7.417mV	0.347nA	7.383mV	0.511nA
3	6.781mV	2.772nA	7.392mV	1.568nA
4	7.342mV	2.057nA	7.283mV	1.779nA
5	7.246mV	2.038nA	7.419mV	1.873nA
6	6.954mV	0.883nA	6.899mV	1.573nA
7	7.267mV	1.846nA	6.786mV	2.431nA
8	7.354mV	2.128nA	7.503mV	2.053nA
9	7.149mV	2.203nA	7.324mV	0.813nA
10	7.406mV	1.820nA	7.143mV	1.245nA
11	7.426mV	0.838nA	7.147mV	0.953nA
12	6.977mV	2.089nA	7.458mV	1.325nA
13	6.876mV	1.050nA	7.107mV	2.806nA
14	7.465mV	1.258nA	6.879mV	2.259nA
15	6.921mV	0.882nA	7.036mV	1.735nA
16	7.049mV	0.955nA	6.824mV	2.223nA
17	6.802mV	0.799nA	6.760mV	2.306nA
18	7.268mV	1.536nA	7.330mV	1.114nA
19	7.380mV	0.506nA	7.401mV	0.473nA
20	6.922mV	1.899nA	6.819mV	1.788nA
21	6.838mV	2.136nA	7.031mV	2.567nA
22	7.325mV	2.174nA	7.169mV	1.369nA
23	7.018mV	0.964nA	7.116mV	1.238nA
24	7.351mV	0.806nA	7.388mV	1.442nA
25	7.513mV	0.994nA	6.984mV	0.502nA
26	7.284mV	0.947nA	7.357mV	2.317nA
27	6.999mV	0.933nA	6.806mV	0.782nA
28	7.221mV	0.474nA	7.096mV	2.632nA
29	7.209mV	1.836nA	7.299mV	2.346nA
30	6.767mV	1.187nA	6.778mV	1.462nA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.987mV	2.630nA	7.076mV	1.687nA
32	7.111mV	2.807nA	6.785mV	0.774nA
33	7.037mV	1.645nA	7.154mV	1.368nA
34	7.214mV	1.902nA	6.830mV	1.861nA
35	7.114mV	1.514nA	6.997mV	1.720nA
36	7.159mV	1.077nA	6.774mV	2.696nA
37	7.398mV	1.334nA	6.822mV	0.665nA
38	6.785mV	1.929nA	6.835mV	2.672nA
39	7.318mV	0.622nA	7.336mV	1.259nA
40	7.440mV	2.414nA	7.122mV	0.552nA
41	7.338mV	2.531nA	7.420mV	0.582nA
42	6.770mV	1.329nA	7.227mV	2.544nA
43	6.838mV	1.108nA	7.305mV	1.396nA
44	7.023mV	1.080nA	7.245mV	0.700nA
45	7.397mV	1.083nA	7.494mV	2.637nA
46	7.379mV	0.650nA	7.170mV	0.621nA
47	7.399mV	1.074nA	7.410mV	1.793nA
48	7.302mV	0.640nA	6.927mV	1.307nA
49	7.497mV	0.961nA	6.850mV	1.316nA
50	7.253mV	1.358nA	7.104mV	1.905nA
51	7.105mV	1.512nA	7.065mV	2.377nA
52	6.885mV	1.029nA	6.959mV	1.356nA
53	7.337mV	1.253nA	7.402mV	2.356nA
54	6.794mV	2.742nA	6.912mV	2.469nA
55	7.303mV	1.525nA	7.433mV	1.221nA
56	6.884mV	2.720nA	7.046mV	1.197nA
57	6.988mV	1.432nA	7.154mV	0.641nA
58	7.191mV	2.601nA	7.478mV	2.183nA
59	7.115mV	2.797nA	7.406mV	0.371nA
60	7.272mV	0.553nA	7.244mV	1.044nA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.157mV	0.513nA	6.990mV	0.357nA
62	7.111mV	1.834nA	7.486mV	0.469nA
63	7.070mV	2.523nA	6.827mV	2.398nA
64	6.856mV	1.565nA	7.102mV	2.013nA
65	7.227mV	0.410nA	6.975mV	1.486nA
66	7.498mV	2.365nA	7.478mV	1.671nA
67	6.889mV	2.655nA	7.233mV	2.265nA
68	7.157mV	1.026nA	7.083mV	2.661nA
69	7.446mV	0.793nA	6.814mV	1.643nA
70	7.419mV	0.394nA	6.829mV	0.857nA
71	7.285mV	1.120nA	6.827mV	0.715nA
72	7.181mV	1.562nA	7.199mV	2.471nA
73	7.077mV	1.183nA	6.951mV	1.226nA
74	6.992mV	0.519nA	7.346mV	0.706nA
75	6.925mV	0.530nA	7.507mV	1.829nA
76	6.839mV	1.273nA	6.994mV	1.827nA
77	7.490mV	2.709nA	6.898mV	2.200nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.155mV	2.303nA	6.920mV	1.523nA
2	7.126mV	0.452nA	6.810mV	0.704nA
3	6.857mV	1.662nA	6.830mV	1.970nA
4	7.002mV	1.292nA	7.102mV	2.490nA
5	6.792mV	0.780nA	7.031mV	2.163nA
6	6.991mV	1.608nA	7.340mV	2.057nA
7	7.017mV	2.271nA	7.339mV	0.955nA
8	7.051mV	2.685nA	6.871mV	2.153nA
9	6.959mV	0.924nA	7.200mV	2.739nA
10	7.386mV	1.969nA	6.791mV	2.722nA
11	6.873mV	0.873nA	6.963mV	0.643nA
12	7.353mV	2.554nA	7.375mV	2.587nA
13	6.886mV	0.987nA	6.841mV	0.837nA
14	7.500mV	1.188nA	7.356mV	1.414nA
15	7.386mV	0.342nA	7.530mV	1.512nA
16	6.940mV	1.932nA	7.104mV	2.008nA
17	7.194mV	2.714nA	7.261mV	1.688nA
18	7.321mV	0.965nA	6.974mV	2.532nA
19	7.140mV	1.480nA	6.836mV	2.369nA
20	7.064mV	0.528nA	7.336mV	1.379nA
21	7.177mV	1.748nA	7.494mV	2.020nA
22	7.021mV	0.346nA	7.112mV	1.503nA
23	7.000mV	0.403nA	7.221mV	2.647nA
24	7.348mV	1.176nA	6.802mV	1.883nA
25	6.839mV	1.987nA	6.981mV	2.422nA
26	7.023mV	1.092nA	6.908mV	2.070nA
27	7.236mV	1.205nA	7.433mV	1.819nA
28	7.317mV	1.546nA	6.878mV	2.372nA
29	7.091mV	2.543nA	6.947mV	1.747nA
30	7.061mV	0.605nA	6.887mV	1.017nA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.057mV	2.196nA	6.857mV	1.098nA
32	7.379mV	2.714nA	6.850mV	1.103nA
33	6.811mV	2.467nA	7.118mV	2.407nA
34	7.224mV	1.176nA	7.441mV	1.326nA
35	7.482mV	1.529nA	7.161mV	1.675nA
36	7.369mV	0.352nA	7.495mV	1.176nA
37	7.375mV	0.947nA	7.364mV	1.537nA
38	6.901mV	1.113nA	7.002mV	2.496nA
39	7.284mV	2.698nA	7.230mV	2.488nA
40	7.244mV	2.128nA	7.508mV	1.718nA
41	6.764mV	2.654nA	7.288mV	2.777nA
42	6.777mV	1.716nA	7.123mV	1.208nA
43	7.407mV	2.582nA	7.412mV	1.298nA
44	7.133mV	1.097nA	7.406mV	0.803nA
45	6.816mV	1.856nA	7.148mV	0.567nA
46	7.008mV	1.096nA	6.810mV	0.903nA
47	7.156mV	1.124nA	6.944mV	1.602nA
48	7.450mV	1.078nA	7.183mV	1.901nA
49	7.440mV	1.839nA	7.222mV	1.471nA
50	6.763mV	1.686nA	7.055mV	1.797nA
51	7.370mV	0.957nA	6.984mV	0.924nA
52	7.100mV	0.724nA	6.780mV	1.122nA
53	6.934mV	0.685nA	6.836mV	1.221nA
54	7.085mV	1.003nA	7.445mV	2.378nA
55	7.409mV	2.751nA	7.509mV	2.041nA
56	6.886mV	2.507nA	7.458mV	1.031nA
57	7.508mV	1.316nA	7.170mV	1.067nA
58	7.128mV	1.412nA	7.389mV	1.134nA
59	7.076mV	2.210nA	7.130mV	2.783nA
60	7.504mV	1.942nA	7.384mV	0.395nA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.789mV	1.290nA	7.301mV	0.706nA
62	7.307mV	1.373nA	7.150mV	1.140nA
63	7.443mV	1.111nA	6.779mV	0.365nA
64	6.935mV	1.950nA	7.242mV	2.785nA
65	7.285mV	1.673nA	6.956mV	0.707nA
66	6.849mV	1.562nA	6.992mV	0.883nA
67	6.877mV	0.944nA	6.902mV	2.498nA
68	7.457mV	1.258nA	7.039mV	0.827nA
69	7.097mV	2.266nA	7.035mV	0.616nA
70	6.811mV	1.400nA	6.801mV	1.663nA
71	6.859mV	0.936nA	7.426mV	0.842nA
72	7.238mV	1.027nA	6.860mV	1.557nA
73	7.511mV	1.013nA	7.157mV	2.219nA
74	6.967mV	2.699nA	6.900mV	2.766nA
75	7.109mV	2.195nA	7.089mV	1.941nA
76	6.997mV	1.506nA	6.934mV	1.145nA
77	7.376mV	2.351nA	6.888mV	1.718nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.350mV	2.485nA	7.114mV	2.396nA
2	7.354mV	0.621nA	7.380mV	1.374nA
3	6.770mV	0.626nA	7.181mV	0.578nA
4	7.418mV	1.011nA	7.153mV	1.081nA
5	6.997mV	2.589nA	7.045mV	0.799nA
6	7.030mV	1.951nA	7.428mV	2.034nA
7	7.098mV	2.439nA	7.070mV	1.212nA
8	6.928mV	1.738nA	7.280mV	1.945nA
9	7.449mV	2.506nA	6.877mV	2.037nA
10	6.858mV	2.018nA	6.840mV	2.755nA
11	7.086mV	2.057nA	7.531mV	0.351nA
12	7.512mV	0.696nA	7.171mV	1.199nA
13	7.366mV	2.196nA	7.444mV	0.617nA
14	6.953mV	2.416nA	6.906mV	1.942nA
15	7.282mV	2.164nA	7.503mV	1.416nA
16	7.058mV	2.337nA	7.220mV	2.567nA
17	6.896mV	1.522nA	7.526mV	2.038nA
18	7.046mV	1.167nA	6.956mV	1.850nA
19	7.262mV	1.917nA	7.390mV	0.606nA
20	7.376mV	1.139nA	7.285mV	1.008nA
21	7.489mV	2.067nA	6.803mV	0.485nA
22	7.380mV	2.492nA	6.879mV	1.683nA
23	7.029mV	2.327nA	7.269mV	2.742nA
24	6.791mV	0.439nA	7.059mV	0.397nA
25	7.049mV	1.026nA	6.975mV	0.897nA
26	7.358mV	1.741nA	7.307mV	1.580nA
27	6.956mV	2.624nA	7.052mV	1.808nA
28	7.024mV	1.594nA	6.891mV	2.223nA
29	7.266mV	2.554nA	6.999mV	1.703nA
30	6.763mV	2.268nA	7.126mV	1.907nA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.960mV	0.463nA	7.389mV	2.343nA
32	7.507mV	2.753nA	7.079mV	0.978nA
33	7.509mV	1.801nA	7.351mV	2.637nA
34	7.473mV	2.689nA	7.082mV	1.603nA
35	7.530mV	0.414nA	7.185mV	1.290nA
36	7.061mV	0.549nA	7.244mV	2.740nA
37	7.441mV	1.190nA	7.063mV	1.987nA
38	7.268mV	2.084nA	6.992mV	2.201nA
39	6.834mV	0.507nA	7.215mV	1.966nA
40	7.115mV	2.075nA	7.227mV	0.907nA
41	7.447mV	2.331nA	7.269mV	1.890nA
42	7.424mV	2.648nA	7.093mV	0.678nA
43	7.046mV	2.744nA	6.827mV	1.525nA
44	7.374mV	2.412nA	7.487mV	2.123nA
45	7.365mV	2.281nA	6.791mV	1.662nA
46	7.013mV	0.675nA	6.805mV	1.190nA
47	6.874mV	0.979nA	7.259mV	0.478nA
48	7.415mV	1.018nA	6.932mV	0.983nA
49	7.355mV	2.461nA	6.877mV	2.419nA
50	7.338mV	1.276nA	7.175mV	1.584nA
51	7.117mV	0.837nA	7.232mV	2.383nA
52	7.075mV	0.547nA	6.855mV	0.908nA
53	7.187mV	1.369nA	7.208mV	0.980nA
54	6.976mV	1.123nA	7.025mV	0.360nA
55	7.484mV	1.882nA	7.273mV	2.488nA
56	6.994mV	0.485nA	7.443mV	0.490nA
57	6.802mV	2.222nA	7.241mV	2.315nA
58	7.097mV	0.575nA	7.483mV	1.755nA
59	7.291mV	0.692nA	6.875mV	2.625nA
60	7.156mV	0.773nA	7.496mV	0.408nA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.476mV	2.130nA	7.491mV	1.259nA
62	7.435mV	2.647nA	7.402mV	1.242nA
63	7.529mV	2.178nA	7.134mV	2.755nA
64	6.905mV	2.355nA	7.055mV	2.163nA
65	6.924mV	2.650nA	6.903mV	1.761nA
66	7.108mV	2.428nA	6.854mV	2.551nA
67	6.923mV	2.201nA	7.354mV	1.502nA
68	6.823mV	2.754nA	6.774mV	1.828nA
69	6.779mV	0.538nA	7.196mV	0.394nA
70	6.929mV	2.593nA	6.907mV	0.524nA
71	6.975mV	2.104nA	7.264mV	0.350nA
72	7.278mV	2.463nA	6.774mV	2.347nA
73	7.417mV	2.366nA	7.036mV	2.381nA
74	7.505mV	1.950nA	7.523mV	1.140nA
75	6.834mV	1.825nA	7.497mV	0.653nA
76	6.949mV	2.604nA	6.940mV	0.551nA
77	7.319mV	2.062nA	7.168mV	0.709nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	6.993mV	0.505nA	7.024mV	2.547nA
2	7.509mV	2.432nA	7.150mV	2.327nA
3	7.170mV	0.929nA	7.441mV	1.370nA
4	7.349mV	0.707nA	6.827mV	0.534nA
5	7.045mV	2.743nA	7.521mV	2.321nA
6	6.829mV	1.690nA	6.859mV	2.221nA
7	7.242mV	1.863nA	7.330mV	2.479nA
8	7.389mV	0.402nA	7.428mV	1.049nA
9	6.783mV	0.399nA	6.885mV	1.722nA
10	7.097mV	0.700nA	6.913mV	1.839nA
11	7.071mV	1.902nA	6.913mV	0.828nA
12	7.024mV	0.828nA	7.367mV	0.668nA
13	7.143mV	1.247nA	7.368mV	1.081nA
14	7.298mV	1.599nA	7.420mV	1.655nA
15	7.196mV	1.995nA	7.144mV	1.449nA
16	7.102mV	1.125nA	7.047mV	1.981nA
17	6.859mV	1.439nA	7.346mV	1.419nA
18	7.384mV	2.534nA	6.767mV	1.881nA
19	7.029mV	2.211nA	7.481mV	2.439nA
20	7.133mV	2.565nA	7.321mV	1.868nA
21	7.442mV	1.474nA	7.031mV	1.278nA
22	6.795mV	1.033nA	7.521mV	2.332nA
23	7.344mV	0.950nA	7.236mV	0.470nA
24	7.136mV	0.655nA	7.409mV	1.753nA
25	7.396mV	1.328nA	6.958mV	0.574nA
26	6.947mV	1.313nA	7.053mV	0.420nA
27	7.197mV	0.856nA	7.118mV	1.050nA
28	6.986mV	2.060nA	7.292mV	1.884nA
29	6.887mV	1.943nA	7.392mV	2.046nA
30	6.819mV	2.019nA	7.028mV	1.709nA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.505mV	2.467nA	6.992mV	0.473nA
32	7.013mV	1.369nA	7.111mV	0.665nA
33	6.787mV	0.524nA	7.049mV	2.542nA
34	7.478mV	0.386nA	7.301mV	1.391nA
35	7.335mV	0.574nA	6.786mV	2.681nA
36	7.127mV	1.494nA	7.045mV	1.904nA
37	7.459mV	1.887nA	6.763mV	0.543nA
38	6.985mV	0.858nA	6.848mV	1.116nA
39	7.403mV	2.717nA	6.768mV	1.662nA
40	7.397mV	2.083nA	6.927mV	0.488nA
41	6.795mV	1.085nA	7.185mV	2.301nA
42	7.404mV	0.703nA	7.215mV	1.643nA
43	6.800mV	2.574nA	7.350mV	2.651nA
44	6.975mV	2.306nA	7.152mV	1.707nA
45	7.060mV	1.330nA	7.290mV	1.271nA
46	7.021mV	1.191nA	7.125mV	1.304nA
47	6.847mV	2.538nA	6.778mV	1.619nA
48	7.479mV	2.508nA	6.828mV	1.232nA
49	7.035mV	2.733nA	6.877mV	2.037nA
50	7.041mV	1.496nA	7.360mV	2.634nA
51	7.370mV	2.257nA	7.393mV	0.457nA
52	6.983mV	1.416nA	7.480mV	2.751nA
53	6.998mV	2.463nA	7.173mV	1.119nA
54	7.360mV	1.095nA	7.442mV	0.815nA
55	6.946mV	2.188nA	7.091mV	1.305nA
56	7.247mV	0.682nA	7.089mV	1.092nA
57	7.251mV	0.550nA	6.977mV	2.522nA
58	7.149mV	1.628nA	7.093mV	2.118nA
59	7.410mV	0.616nA	7.415mV	1.163nA
60	7.088mV	2.373nA	6.917mV	2.698nA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.329mV	2.057nA	7.447mV	2.503nA
62	6.777mV	0.456nA	7.010mV	0.486nA
63	7.356mV	2.679nA	7.351mV	1.485nA
64	7.019mV	1.380nA	6.805mV	2.437nA
65	7.050mV	2.520nA	6.964mV	2.409nA
66	6.984mV	1.819nA	7.359mV	1.271nA
67	7.186mV	2.441nA	7.231mV	0.866nA
68	7.113mV	2.108nA	7.168mV	2.666nA
69	6.984mV	2.089nA	7.313mV	2.442nA
70	6.889mV	1.180nA	6.881mV	2.797nA
71	7.418mV	0.438nA	6.925mV	0.942nA
72	7.467mV	0.360nA	7.506mV	1.268nA
73	6.777mV	2.088nA	7.361mV	1.057nA
74	7.191mV	2.319nA	7.502mV	0.500nA
75	7.288mV	2.310nA	7.344mV	0.524nA
76	6.898mV	2.150nA	7.017mV	0.626nA
77	7.125mV	2.596nA	6.862mV	0.905nA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T140630-041
Part No : KS05B4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6.1V>VBR>8.5V@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	7.108mV	2.502nA	6.920mV	2.611nA
2	6.944mV	0.951nA	7.179mV	0.774nA
3	6.973mV	0.436nA	7.395mV	1.159nA
4	7.079mV	0.706nA	7.116mV	1.134nA
5	6.960mV	0.986nA	7.084mV	0.549nA
6	7.037mV	1.090nA	7.432mV	0.970nA
7	7.420mV	0.776nA	7.389mV	2.029nA
8	7.113mV	0.846nA	7.212mV	1.492nA
9	7.027mV	0.365nA	7.369mV	1.448nA
10	7.181mV	1.994nA	7.482mV	1.295nA

Made By: Leo Hsia

Approval: Peter Yang