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Product/Process Change Notification

PCN#	Effective Date	Issue Date
2014-08-01C-07	2015/2/1	2014/8/1

PCN Classification	Product Category
Major	SOT-553 Package

Subject
Add a molding vendor

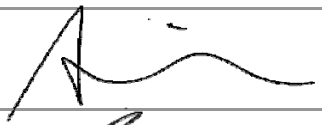
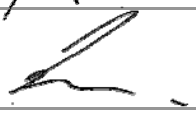
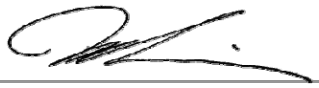
Affected Product(s)
KS05L4. KS05LL4. SEMY1. EMG11

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- 43

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	KS05L4	100 ± 5℃, 100%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	KS05L4	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	KS05L4	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	KS05L4	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	KS05L4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	KS05L4	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	KS05L4	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 : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)
1	6.409mV	0.169uA
2	6.673mV	0.118uA
3	6.382mV	0.107uA
4	6.560mV	0.110uA
5	6.532mV	0.359uA
6	6.397mV	0.240uA
7	6.381mV	0.114uA
8	6.379mV	0.341uA
9	6.584mV	0.263uA
10	6.659mV	0.170uA
11	6.418mV	0.043uA
12	6.680mV	0.277uA
13	6.643mV	0.205uA
14	6.367mV	0.375uA
15	6.369mV	0.115uA
16	6.491mV	0.383uA
17	6.439mV	0.290uA
18	6.689mV	0.265uA
19	6.715mV	0.234uA
20	6.462mV	0.262uA
21	6.675mV	0.059uA
22	6.500mV	0.328uA
23	6.682mV	0.097uA
24	6.546mV	0.236uA
25	6.650mV	0.117uA
26	6.472mV	0.177uA
27	6.590mV	0.138uA
28	6.551mV	0.206uA
29	6.578mV	0.207uA
30	6.518mV	0.068uA
31	6.396mV	0.147uA

SeCoS Corporation

Electrical Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)
32	6.700mV	0.340uA
33	6.406mV	0.156uA
34	6.526mV	0.230uA
35	6.600mV	0.072uA
36	6.579mV	0.048uA
37	6.511mV	0.147uA
38	6.438mV	0.193uA
39	6.425mV	0.077uA
40	6.558mV	0.146uA
41	6.379mV	0.254uA
42	6.682mV	0.040uA
43	6.573mV	0.310uA
44	6.622mV	0.109uA
45	6.442mV	0.347uA
46	6.656mV	0.146uA
47	6.629mV	0.291uA
48	6.630mV	0.282uA
49	6.374mV	0.210uA
50	6.446mV	0.213uA
51	6.483mV	0.044uA
52	6.564mV	0.381uA
53	6.368mV	0.051uA
54	6.698mV	0.197uA
55	6.435mV	0.321uA
56	6.709mV	0.304uA
57	6.676mV	0.109uA
58	6.528mV	0.114uA
59	6.589mV	0.208uA
60	6.705mV	0.266uA
61	6.679mV	0.071uA
62	6.595mV	0.387uA

SeCoS Corporation

Electrical Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)
63	6.477mV	0.286uA
64	6.447mV	0.071uA
65	6.609mV	0.388uA
66	6.490mV	0.163uA
67	6.437mV	0.110uA
68	6.717mV	0.069uA
69	6.628mV	0.133uA
70	6.401mV	0.325uA
71	6.605mV	0.160uA
72	6.518mV	0.071uA
73	6.713mV	0.077uA
74	6.575mV	0.365uA
75	6.496mV	0.373uA
76	6.431mV	0.226uA
77	6.371mV	0.250uA

Made By: Leo Hsia Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.619mV	0.041uA	6.415mV	0.242uA
2	6.420mV	0.227uA	6.480mV	0.225uA
3	6.640mV	0.322uA	6.556mV	0.187uA
4	6.462mV	0.310uA	6.565mV	0.279uA
5	6.543mV	0.068uA	6.412mV	0.329uA
6	6.522mV	0.083uA	6.672mV	0.221uA
7	6.646mV	0.335uA	6.635mV	0.125uA
8	6.667mV	0.305uA	6.389mV	0.269uA
9	6.617mV	0.109uA	6.466mV	0.344uA
10	6.429mV	0.366uA	6.525mV	0.321uA
11	6.473mV	0.336uA	6.521mV	0.248uA
12	6.405mV	0.161uA	6.417mV	0.215uA
13	6.614mV	0.239uA	6.676mV	0.274uA
14	6.425mV	0.205uA	6.520mV	0.126uA
15	6.669mV	0.153uA	6.714mV	0.202uA
16	6.475mV	0.307uA	6.657mV	0.235uA
17	6.624mV	0.300uA	6.582mV	0.118uA
18	6.445mV	0.284uA	6.521mV	0.257uA
19	6.617mV	0.102uA	6.501mV	0.304uA
20	6.545mV	0.337uA	6.368mV	0.051uA
21	6.415mV	0.125uA	6.481mV	0.122uA
22	6.604mV	0.252uA	6.424mV	0.286uA
23	6.389mV	0.179uA	6.605mV	0.256uA
24	6.656mV	0.048uA	6.497mV	0.254uA
25	6.561mV	0.064uA	6.528mV	0.105uA
26	6.366mV	0.297uA	6.594mV	0.128uA
27	6.653mV	0.386uA	6.512mV	0.363uA
28	6.701mV	0.072uA	6.491mV	0.341uA
29	6.544mV	0.104uA	6.545mV	0.210uA
30	6.533mV	0.250uA	6.389mV	0.280uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.636mV	0.199uA	6.387mV	0.109uA
32	6.514mV	0.158uA	6.424mV	0.225uA
33	6.497mV	0.330uA	6.546mV	0.176uA
34	6.387mV	0.328uA	6.602mV	0.341uA
35	6.474mV	0.330uA	6.517mV	0.253uA
36	6.455mV	0.264uA	6.386mV	0.078uA
37	6.574mV	0.263uA	6.534mV	0.330uA
38	6.710mV	0.234uA	6.602mV	0.049uA
39	6.499mV	0.319uA	6.367mV	0.161uA
40	6.631mV	0.268uA	6.369mV	0.240uA
41	6.438mV	0.206uA	6.398mV	0.275uA
42	6.530mV	0.386uA	6.606mV	0.276uA
43	6.506mV	0.047uA	6.627mV	0.098uA
44	6.521mV	0.148uA	6.642mV	0.049uA
45	6.629mV	0.108uA	6.606mV	0.291uA
46	6.638mV	0.276uA	6.652mV	0.326uA
47	6.376mV	0.261uA	6.650mV	0.102uA
48	6.577mV	0.058uA	6.368mV	0.222uA
49	6.441mV	0.151uA	6.375mV	0.047uA
50	6.571mV	0.155uA	6.575mV	0.064uA
51	6.687mV	0.096uA	6.707mV	0.040uA
52	6.495mV	0.088uA	6.664mV	0.226uA
53	6.690mV	0.345uA	6.528mV	0.355uA
54	6.635mV	0.128uA	6.689mV	0.075uA
55	6.507mV	0.291uA	6.655mV	0.042uA
56	6.389mV	0.057uA	6.585mV	0.153uA
57	6.657mV	0.158uA	6.366mV	0.087uA
58	6.652mV	0.244uA	6.668mV	0.326uA
59	6.547mV	0.353uA	6.462mV	0.119uA
60	6.561mV	0.311uA	6.710mV	0.308uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.479mV	0.372uA	6.513mV	0.045uA
62	6.660mV	0.161uA	6.590mV	0.327uA
63	6.640mV	0.202uA	6.593mV	0.287uA
64	6.706mV	0.381uA	6.559mV	0.206uA
65	6.708mV	0.285uA	6.535mV	0.252uA
66	6.694mV	0.275uA	6.472mV	0.066uA
67	6.525mV	0.290uA	6.518mV	0.219uA
68	6.633mV	0.195uA	6.604mV	0.299uA
69	6.432mV	0.101uA	6.667mV	0.106uA
70	6.495mV	0.126uA	6.464mV	0.151uA
71	6.514mV	0.062uA	6.393mV	0.262uA
72	6.372mV	0.152uA	6.456mV	0.307uA
73	6.453mV	0.273uA	6.463mV	0.242uA
74	6.467mV	0.381uA	6.622mV	0.090uA
75	6.685mV	0.106uA	6.386mV	0.062uA
76	6.377mV	0.280uA	6.476mV	0.181uA
77	6.520mV	0.116uA	6.711mV	0.083uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.703mV	0.125uA	6.634mV	0.157uA
2	6.632mV	0.349uA	6.572mV	0.291uA
3	6.489mV	0.240uA	6.644mV	0.217uA
4	6.574mV	0.189uA	6.662mV	0.384uA
5	6.369mV	0.337uA	6.473mV	0.223uA
6	6.652mV	0.087uA	6.605mV	0.088uA
7	6.599mV	0.310uA	6.449mV	0.073uA
8	6.631mV	0.321uA	6.503mV	0.298uA
9	6.463mV	0.167uA	6.445mV	0.276uA
10	6.463mV	0.106uA	6.662mV	0.317uA
11	6.407mV	0.043uA	6.470mV	0.186uA
12	6.572mV	0.077uA	6.633mV	0.071uA
13	6.389mV	0.070uA	6.607mV	0.287uA
14	6.399mV	0.321uA	6.451mV	0.038uA
15	6.581mV	0.172uA	6.415mV	0.038uA
16	6.394mV	0.351uA	6.385mV	0.200uA
17	6.476mV	0.337uA	6.641mV	0.187uA
18	6.474mV	0.169uA	6.661mV	0.080uA
19	6.681mV	0.314uA	6.625mV	0.077uA
20	6.610mV	0.078uA	6.662mV	0.082uA
21	6.668mV	0.247uA	6.495mV	0.317uA
22	6.544mV	0.274uA	6.628mV	0.275uA
23	6.522mV	0.240uA	6.430mV	0.225uA
24	6.559mV	0.348uA	6.653mV	0.282uA
25	6.625mV	0.294uA	6.666mV	0.105uA
26	6.383mV	0.145uA	6.406mV	0.151uA
27	6.571mV	0.214uA	6.434mV	0.185uA
28	6.540mV	0.319uA	6.554mV	0.209uA
29	6.485mV	0.190uA	6.437mV	0.221uA
30	6.471mV	0.337uA	6.505mV	0.331uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.430mV	0.270uA	6.594mV	0.184uA
32	6.401mV	0.276uA	6.415mV	0.244uA
33	6.472mV	0.207uA	6.469mV	0.073uA
34	6.379mV	0.112uA	6.417mV	0.249uA
35	6.602mV	0.136uA	6.374mV	0.226uA
36	6.444mV	0.236uA	6.687mV	0.085uA
37	6.719mV	0.305uA	6.657mV	0.302uA
38	6.615mV	0.248uA	6.537mV	0.246uA
39	6.461mV	0.271uA	6.452mV	0.197uA
40	6.641mV	0.327uA	6.624mV	0.142uA
41	6.651mV	0.294uA	6.577mV	0.325uA
42	6.470mV	0.197uA	6.501mV	0.063uA
43	6.508mV	0.113uA	6.591mV	0.187uA
44	6.480mV	0.152uA	6.600mV	0.164uA
45	6.713mV	0.292uA	6.605mV	0.327uA
46	6.533mV	0.280uA	6.541mV	0.104uA
47	6.485mV	0.128uA	6.714mV	0.073uA
48	6.675mV	0.257uA	6.644mV	0.382uA
49	6.444mV	0.105uA	6.524mV	0.159uA
50	6.539mV	0.134uA	6.478mV	0.275uA
51	6.488mV	0.301uA	6.620mV	0.206uA
52	6.702mV	0.130uA	6.545mV	0.360uA
53	6.467mV	0.202uA	6.682mV	0.308uA
54	6.517mV	0.099uA	6.395mV	0.096uA
55	6.633mV	0.118uA	6.378mV	0.291uA
56	6.527mV	0.333uA	6.439mV	0.280uA
57	6.655mV	0.288uA	6.593mV	0.169uA
58	6.409mV	0.131uA	6.537mV	0.255uA
59	6.554mV	0.267uA	6.682mV	0.287uA
60	6.653mV	0.061uA	6.458mV	0.331uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.640mV	0.350uA	6.532mV	0.308uA
62	6.690mV	0.381uA	6.401mV	0.200uA
63	6.474mV	0.042uA	6.525mV	0.369uA
64	6.526mV	0.095uA	6.424mV	0.283uA
65	6.677mV	0.308uA	6.499mV	0.349uA
66	6.550mV	0.338uA	6.653mV	0.343uA
67	6.499mV	0.358uA	6.470mV	0.260uA
68	6.612mV	0.055uA	6.563mV	0.188uA
69	6.556mV	0.369uA	6.661mV	0.259uA
70	6.423mV	0.241uA	6.441mV	0.301uA
71	6.424mV	0.088uA	6.624mV	0.050uA
72	6.454mV	0.058uA	6.578mV	0.234uA
73	6.493mV	0.200uA	6.617mV	0.375uA
74	6.407mV	0.150uA	6.623mV	0.287uA
75	6.464mV	0.214uA	6.629mV	0.189uA
76	6.371mV	0.344uA	6.489mV	0.124uA
77	6.533mV	0.327uA	6.485mV	0.220uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.449mV	0.331uA	6.667mV	0.265uA
2	6.707mV	0.211uA	6.366mV	0.091uA
3	6.512mV	0.084uA	6.531mV	0.195uA
4	6.452mV	0.206uA	6.389mV	0.214uA
5	6.382mV	0.286uA	6.490mV	0.303uA
6	6.376mV	0.083uA	6.716mV	0.142uA
7	6.408mV	0.214uA	6.616mV	0.073uA
8	6.660mV	0.047uA	6.540mV	0.173uA
9	6.582mV	0.150uA	6.636mV	0.223uA
10	6.404mV	0.209uA	6.665mV	0.201uA
11	6.607mV	0.130uA	6.408mV	0.106uA
12	6.455mV	0.126uA	6.368mV	0.133uA
13	6.702mV	0.334uA	6.436mV	0.103uA
14	6.374mV	0.173uA	6.513mV	0.131uA
15	6.592mV	0.362uA	6.526mV	0.194uA
16	6.450mV	0.138uA	6.703mV	0.316uA
17	6.535mV	0.088uA	6.481mV	0.203uA
18	6.377mV	0.102uA	6.557mV	0.105uA
19	6.396mV	0.168uA	6.395mV	0.051uA
20	6.703mV	0.355uA	6.666mV	0.150uA
21	6.521mV	0.194uA	6.374mV	0.305uA
22	6.668mV	0.044uA	6.707mV	0.366uA
23	6.376mV	0.239uA	6.445mV	0.329uA
24	6.487mV	0.328uA	6.637mV	0.386uA
25	6.717mV	0.246uA	6.568mV	0.116uA
26	6.567mV	0.073uA	6.396mV	0.107uA
27	6.653mV	0.075uA	6.702mV	0.047uA
28	6.617mV	0.108uA	6.533mV	0.214uA
29	6.683mV	0.036uA	6.617mV	0.199uA
30	6.494mV	0.114uA	6.468mV	0.151uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.620mV	0.231uA	6.414mV	0.163uA
32	6.501mV	0.375uA	6.601mV	0.273uA
33	6.409mV	0.114uA	6.582mV	0.167uA
34	6.718mV	0.359uA	6.694mV	0.331uA
35	6.638mV	0.228uA	6.486mV	0.168uA
36	6.702mV	0.217uA	6.576mV	0.352uA
37	6.470mV	0.274uA	6.638mV	0.192uA
38	6.550mV	0.047uA	6.421mV	0.253uA
39	6.631mV	0.144uA	6.560mV	0.052uA
40	6.611mV	0.222uA	6.573mV	0.254uA
41	6.565mV	0.120uA	6.670mV	0.055uA
42	6.421mV	0.197uA	6.390mV	0.158uA
43	6.416mV	0.087uA	6.626mV	0.337uA
44	6.541mV	0.267uA	6.687mV	0.330uA
45	6.570mV	0.258uA	6.716mV	0.254uA
46	6.460mV	0.314uA	6.383mV	0.299uA
47	6.595mV	0.042uA	6.514mV	0.354uA
48	6.630mV	0.152uA	6.554mV	0.148uA
49	6.608mV	0.143uA	6.417mV	0.228uA
50	6.493mV	0.215uA	6.468mV	0.039uA
51	6.640mV	0.123uA	6.653mV	0.266uA
52	6.637mV	0.318uA	6.635mV	0.368uA
53	6.388mV	0.053uA	6.659mV	0.150uA
54	6.527mV	0.310uA	6.687mV	0.308uA
55	6.447mV	0.068uA	6.457mV	0.319uA
56	6.614mV	0.276uA	6.493mV	0.195uA
57	6.504mV	0.116uA	6.566mV	0.043uA
58	6.533mV	0.313uA	6.697mV	0.227uA
59	6.557mV	0.078uA	6.669mV	0.254uA
60	6.475mV	0.125uA	6.541mV	0.038uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.624mV	0.123uA	6.446mV	0.116uA
62	6.718mV	0.297uA	6.567mV	0.310uA
63	6.590mV	0.311uA	6.587mV	0.386uA
64	6.586mV	0.048uA	6.521mV	0.309uA
65	6.650mV	0.294uA	6.630mV	0.152uA
66	6.446mV	0.228uA	6.577mV	0.155uA
67	6.396mV	0.052uA	6.608mV	0.157uA
68	6.523mV	0.241uA	6.630mV	0.323uA
69	6.418mV	0.175uA	6.673mV	0.313uA
70	6.705mV	0.177uA	6.630mV	0.207uA
71	6.703mV	0.103uA	6.606mV	0.162uA
72	6.658mV	0.137uA	6.584mV	0.067uA
73	6.554mV	0.198uA	6.402mV	0.043uA
74	6.409mV	0.258uA	6.609mV	0.289uA
75	6.402mV	0.320uA	6.521mV	0.181uA
76	6.510mV	0.088uA	6.538mV	0.329uA
77	6.486mV	0.162uA	6.523mV	0.121uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.536mV	0.111uA	6.690mV	0.371uA
2	6.484mV	0.042uA	6.440mV	0.248uA
3	6.544mV	0.346uA	6.528mV	0.373uA
4	6.516mV	0.207uA	6.482mV	0.063uA
5	6.549mV	0.266uA	6.720mV	0.260uA
6	6.669mV	0.290uA	6.468mV	0.282uA
7	6.532mV	0.180uA	6.617mV	0.056uA
8	6.560mV	0.322uA	6.594mV	0.354uA
9	6.382mV	0.293uA	6.401mV	0.374uA
10	6.471mV	0.355uA	6.590mV	0.063uA
11	6.441mV	0.240uA	6.592mV	0.081uA
12	6.621mV	0.246uA	6.704mV	0.215uA
13	6.420mV	0.363uA	6.394mV	0.383uA
14	6.592mV	0.352uA	6.614mV	0.372uA
15	6.655mV	0.054uA	6.386mV	0.317uA
16	6.630mV	0.048uA	6.544mV	0.072uA
17	6.468mV	0.128uA	6.701mV	0.104uA
18	6.399mV	0.070uA	6.564mV	0.237uA
19	6.709mV	0.044uA	6.369mV	0.217uA
20	6.562mV	0.170uA	6.661mV	0.049uA
21	6.434mV	0.295uA	6.699mV	0.261uA
22	6.680mV	0.093uA	6.510mV	0.099uA
23	6.416mV	0.159uA	6.666mV	0.340uA
24	6.644mV	0.167uA	6.551mV	0.264uA
25	6.672mV	0.106uA	6.706mV	0.302uA
26	6.574mV	0.170uA	6.435mV	0.365uA
27	6.693mV	0.283uA	6.486mV	0.041uA
28	6.645mV	0.363uA	6.580mV	0.090uA
29	6.614mV	0.341uA	6.529mV	0.203uA
30	6.476mV	0.038uA	6.404mV	0.314uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.508mV	0.104uA	6.686mV	0.219uA
32	6.583mV	0.216uA	6.605mV	0.196uA
33	6.689mV	0.318uA	6.560mV	0.179uA
34	6.426mV	0.198uA	6.566mV	0.319uA
35	6.709mV	0.197uA	6.371mV	0.279uA
36	6.630mV	0.140uA	6.575mV	0.218uA
37	6.436mV	0.096uA	6.453mV	0.238uA
38	6.517mV	0.065uA	6.535mV	0.333uA
39	6.638mV	0.202uA	6.442mV	0.173uA
40	6.491mV	0.182uA	6.544mV	0.341uA
41	6.633mV	0.336uA	6.433mV	0.226uA
42	6.621mV	0.319uA	6.548mV	0.103uA
43	6.453mV	0.340uA	6.629mV	0.316uA
44	6.685mV	0.281uA	6.556mV	0.298uA
45	6.589mV	0.159uA	6.432mV	0.324uA
46	6.561mV	0.225uA	6.501mV	0.182uA
47	6.661mV	0.372uA	6.466mV	0.264uA
48	6.469mV	0.268uA	6.631mV	0.323uA
49	6.501mV	0.301uA	6.661mV	0.214uA
50	6.534mV	0.124uA	6.570mV	0.309uA
51	6.608mV	0.164uA	6.480mV	0.259uA
52	6.601mV	0.145uA	6.436mV	0.225uA
53	6.618mV	0.184uA	6.443mV	0.375uA
54	6.482mV	0.064uA	6.711mV	0.138uA
55	6.583mV	0.206uA	6.624mV	0.128uA
56	6.614mV	0.343uA	6.607mV	0.132uA
57	6.579mV	0.300uA	6.500mV	0.123uA
58	6.581mV	0.224uA	6.595mV	0.113uA
59	6.488mV	0.270uA	6.579mV	0.381uA
60	6.636mV	0.091uA	6.471mV	0.295uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.407mV	0.202uA	6.495mV	0.332uA
62	6.561mV	0.262uA	6.451mV	0.378uA
63	6.473mV	0.382uA	6.527mV	0.281uA
64	6.529mV	0.375uA	6.677mV	0.224uA
65	6.600mV	0.036uA	6.503mV	0.063uA
66	6.503mV	0.269uA	6.433mV	0.357uA
67	6.396mV	0.323uA	6.501mV	0.305uA
68	6.632mV	0.337uA	6.414mV	0.118uA
69	6.503mV	0.221uA	6.569mV	0.169uA
70	6.704mV	0.356uA	6.595mV	0.270uA
71	6.393mV	0.349uA	6.390mV	0.160uA
72	6.620mV	0.235uA	6.469mV	0.310uA
73	6.369mV	0.287uA	6.544mV	0.304uA
74	6.558mV	0.040uA	6.646mV	0.077uA
75	6.451mV	0.126uA	6.591mV	0.081uA
76	6.595mV	0.073uA	6.579mV	0.342uA
77	6.629mV	0.047uA	6.660mV	0.218uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.369mV	0.346uA	6.422mV	0.332uA
2	6.699mV	0.157uA	6.488mV	0.122uA
3	6.710mV	0.226uA	6.493mV	0.251uA
4	6.632mV	0.158uA	6.565mV	0.117uA
5	6.687mV	0.101uA	6.667mV	0.338uA
6	6.654mV	0.096uA	6.496mV	0.281uA
7	6.402mV	0.269uA	6.479mV	0.351uA
8	6.424mV	0.378uA	6.377mV	0.266uA
9	6.547mV	0.344uA	6.605mV	0.173uA
10	6.559mV	0.186uA	6.418mV	0.216uA
11	6.480mV	0.208uA	6.422mV	0.323uA
12	6.525mV	0.301uA	6.456mV	0.139uA
13	6.497mV	0.149uA	6.551mV	0.056uA
14	6.597mV	0.386uA	6.655mV	0.261uA
15	6.720mV	0.291uA	6.713mV	0.194uA
16	6.380mV	0.245uA	6.455mV	0.095uA
17	6.478mV	0.312uA	6.546mV	0.154uA
18	6.665mV	0.198uA	6.667mV	0.378uA
19	6.401mV	0.361uA	6.431mV	0.120uA
20	6.390mV	0.049uA	6.491mV	0.073uA
21	6.486mV	0.265uA	6.433mV	0.227uA
22	6.368mV	0.186uA	6.550mV	0.213uA
23	6.543mV	0.214uA	6.656mV	0.354uA
24	6.377mV	0.186uA	6.462mV	0.088uA
25	6.463mV	0.325uA	6.476mV	0.325uA
26	6.658mV	0.164uA	6.559mV	0.233uA
27	6.459mV	0.106uA	6.704mV	0.145uA
28	6.686mV	0.229uA	6.485mV	0.371uA
29	6.542mV	0.173uA	6.403mV	0.127uA
30	6.398mV	0.332uA	6.474mV	0.316uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.582mV	0.141uA	6.420mV	0.281uA
32	6.486mV	0.140uA	6.371mV	0.284uA
33	6.606mV	0.329uA	6.403mV	0.371uA
34	6.714mV	0.367uA	6.458mV	0.064uA
35	6.712mV	0.047uA	6.668mV	0.166uA
36	6.536mV	0.184uA	6.693mV	0.105uA
37	6.557mV	0.081uA	6.501mV	0.258uA
38	6.453mV	0.243uA	6.518mV	0.364uA
39	6.469mV	0.283uA	6.426mV	0.367uA
40	6.555mV	0.291uA	6.392mV	0.276uA
41	6.370mV	0.254uA	6.471mV	0.199uA
42	6.595mV	0.279uA	6.482mV	0.199uA
43	6.569mV	0.380uA	6.496mV	0.218uA
44	6.636mV	0.256uA	6.539mV	0.136uA
45	6.687mV	0.175uA	6.368mV	0.125uA
46	6.504mV	0.072uA	6.627mV	0.372uA
47	6.389mV	0.232uA	6.569mV	0.169uA
48	6.449mV	0.185uA	6.411mV	0.194uA
49	6.536mV	0.158uA	6.400mV	0.185uA
50	6.484mV	0.286uA	6.457mV	0.195uA
51	6.419mV	0.049uA	6.545mV	0.258uA
52	6.629mV	0.220uA	6.420mV	0.039uA
53	6.434mV	0.204uA	6.506mV	0.168uA
54	6.704mV	0.250uA	6.615mV	0.087uA
55	6.582mV	0.195uA	6.577mV	0.053uA
56	6.588mV	0.324uA	6.388mV	0.363uA
57	6.682mV	0.122uA	6.516mV	0.073uA
58	6.656mV	0.218uA	6.510mV	0.074uA
59	6.528mV	0.080uA	6.472mV	0.269uA
60	6.507mV	0.346uA	6.635mV	0.090uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.673mV	0.134uA	6.523mV	0.219uA
62	6.539mV	0.097uA	6.561mV	0.157uA
63	6.546mV	0.367uA	6.495mV	0.094uA
64	6.478mV	0.048uA	6.585mV	0.224uA
65	6.427mV	0.060uA	6.575mV	0.321uA
66	6.550mV	0.284uA	6.530mV	0.239uA
67	6.507mV	0.378uA	6.477mV	0.251uA
68	6.461mV	0.361uA	6.543mV	0.131uA
69	6.632mV	0.186uA	6.375mV	0.323uA
70	6.377mV	0.049uA	6.597mV	0.293uA
71	6.415mV	0.137uA	6.406mV	0.181uA
72	6.644mV	0.047uA	6.508mV	0.155uA
73	6.704mV	0.327uA	6.526mV	0.311uA
74	6.638mV	0.138uA	6.376mV	0.303uA
75	6.586mV	0.199uA	6.417mV	0.127uA
76	6.418mV	0.080uA	6.710mV	0.336uA
77	6.568mV	0.333uA	6.715mV	0.361uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.520mV	0.348uA	6.468mV	0.054uA
2	6.458mV	0.348uA	6.557mV	0.291uA
3	6.463mV	0.276uA	6.390mV	0.075uA
4	6.576mV	0.261uA	6.397mV	0.267uA
5	6.672mV	0.222uA	6.416mV	0.142uA
6	6.585mV	0.317uA	6.448mV	0.094uA
7	6.616mV	0.340uA	6.467mV	0.147uA
8	6.486mV	0.292uA	6.688mV	0.114uA
9	6.575mV	0.172uA	6.543mV	0.280uA
10	6.393mV	0.187uA	6.462mV	0.210uA
11	6.535mV	0.216uA	6.671mV	0.225uA
12	6.405mV	0.208uA	6.610mV	0.064uA
13	6.642mV	0.364uA	6.436mV	0.096uA
14	6.601mV	0.192uA	6.440mV	0.154uA
15	6.643mV	0.200uA	6.465mV	0.353uA
16	6.684mV	0.282uA	6.387mV	0.135uA
17	6.563mV	0.247uA	6.597mV	0.194uA
18	6.541mV	0.218uA	6.549mV	0.144uA
19	6.669mV	0.134uA	6.598mV	0.080uA
20	6.551mV	0.111uA	6.462mV	0.114uA
21	6.590mV	0.346uA	6.412mV	0.297uA
22	6.649mV	0.053uA	6.474mV	0.332uA
23	6.511mV	0.243uA	6.432mV	0.231uA
24	6.425mV	0.180uA	6.385mV	0.355uA
25	6.391mV	0.219uA	6.387mV	0.346uA
26	6.661mV	0.047uA	6.447mV	0.279uA
27	6.710mV	0.304uA	6.455mV	0.387uA
28	6.535mV	0.258uA	6.384mV	0.260uA
29	6.393mV	0.261uA	6.471mV	0.275uA
30	6.366mV	0.125uA	6.444mV	0.156uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
31	6.657mV	0.345uA	6.400mV	0.128uA
32	6.578mV	0.284uA	6.523mV	0.133uA
33	6.466mV	0.357uA	6.476mV	0.311uA
34	6.534mV	0.130uA	6.662mV	0.063uA
35	6.554mV	0.205uA	6.634mV	0.311uA
36	6.597mV	0.382uA	6.648mV	0.172uA
37	6.646mV	0.308uA	6.599mV	0.380uA
38	6.646mV	0.313uA	6.632mV	0.288uA
39	6.422mV	0.048uA	6.641mV	0.053uA
40	6.371mV	0.260uA	6.397mV	0.085uA
41	6.530mV	0.077uA	6.418mV	0.351uA
42	6.456mV	0.190uA	6.502mV	0.212uA
43	6.603mV	0.223uA	6.706mV	0.192uA
44	6.646mV	0.378uA	6.620mV	0.071uA
45	6.594mV	0.071uA	6.681mV	0.287uA
46	6.520mV	0.084uA	6.398mV	0.284uA
47	6.457mV	0.376uA	6.513mV	0.349uA
48	6.445mV	0.232uA	6.697mV	0.157uA
49	6.456mV	0.083uA	6.552mV	0.112uA
50	6.510mV	0.339uA	6.515mV	0.250uA
51	6.640mV	0.366uA	6.373mV	0.209uA
52	6.509mV	0.277uA	6.683mV	0.370uA
53	6.649mV	0.248uA	6.389mV	0.341uA
54	6.560mV	0.364uA	6.699mV	0.064uA
55	6.420mV	0.341uA	6.416mV	0.309uA
56	6.536mV	0.217uA	6.497mV	0.337uA
57	6.499mV	0.184uA	6.635mV	0.348uA
58	6.572mV	0.094uA	6.485mV	0.078uA
59	6.409mV	0.039uA	6.593mV	0.334uA
60	6.643mV	0.273uA	6.605mV	0.273uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
61	6.672mV	0.138uA	6.399mV	0.349uA
62	6.636mV	0.263uA	6.556mV	0.275uA
63	6.590mV	0.064uA	6.660mV	0.289uA
64	6.611mV	0.319uA	6.601mV	0.349uA
65	6.684mV	0.098uA	6.488mV	0.131uA
66	6.599mV	0.112uA	6.589mV	0.158uA
67	6.668mV	0.266uA	6.492mV	0.385uA
68	6.550mV	0.083uA	6.704mV	0.288uA
69	6.477mV	0.293uA	6.543mV	0.332uA
70	6.709mV	0.064uA	6.438mV	0.114uA
71	6.629mV	0.075uA	6.365mV	0.204uA
72	6.481mV	0.072uA	6.519mV	0.165uA
73	6.638mV	0.324uA	6.656mV	0.320uA
74	6.558mV	0.131uA	6.599mV	0.352uA
75	6.498mV	0.382uA	6.587mV	0.313uA
76	6.371mV	0.279uA	6.596mV	0.301uA
77	6.591mV	0.124uA	6.425mV	0.256uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T140630-043
Part No : KS05L4
Test Equipment: JUNO Test System DTS-1000
Test Condition : 6V>VBR>7.2V@I1=1mA, IR<5uA@VR=5V
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 (uA)	V_{BR} (V)	IR (uA)
1	6.492mV	0.074uA	6.485mV	0.272uA
2	6.585mV	0.129uA	6.603mV	0.282uA
3	6.533mV	0.375uA	6.481mV	0.246uA
4	6.683mV	0.342uA	6.614mV	0.340uA
5	6.629mV	0.269uA	6.615mV	0.058uA
6	6.373mV	0.304uA	6.512mV	0.106uA
7	6.657mV	0.378uA	6.404mV	0.120uA
8	6.622mV	0.302uA	6.516mV	0.227uA
9	6.553mV	0.052uA	6.597mV	0.276uA
10	6.493mV	0.047uA	6.683mV	0.126uA

Made By: Leo Hsia

Approval: Peter Yang