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
2015-10-21C-08	2016/2/1	2015/10/21

PCN Classification	Product Category
Major	Transistor

Subject

Change the assembly house.

Affected Product(s)

BCP5401

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)

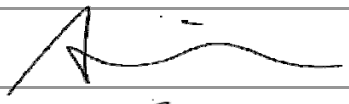
Assembly house.

Impact(s)

None

Attachment(s)

Reliability Test Report.

Approval		
Issue 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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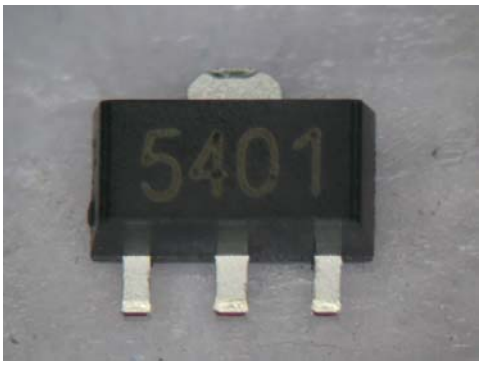
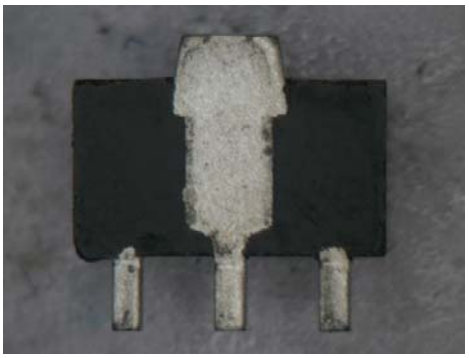
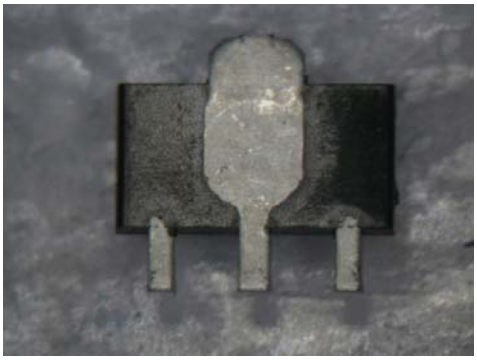
Exterior comparison Chart	
Original	New
 Top View	 Top View
 Back View	 Back View

SeCoS Corporation

Reliability Testing Summary Report

Date: 2015/10/08 Document No.: SI15 -10-106

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	BCP5401	150 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	BCP5401	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	BCP5401	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	BCP5401	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	BCP5401	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	BCP5401	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	BCP5401	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: 2015.08.17 Testing End Date: 2015.10.08

Tester: King Huang Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 25℃
Test Date: 2015.08.17
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-195.7V	232.0	-104.7mV
2	-197.6V	233.3	-105.2mV
3	-201.8V	228.5	-96.2mV
4	-197.9V	232.9	-96.7mV
5	-194.6V	231.5	-92.5mV
6	-200.7V	233.8	-94.6mV
7	-197.2V	231.1	-102.2mV
8	-198.6V	234.8	-94.4mV
9	-200.0V	223.2	-98.1mV
10	-193.6V	224.2	-99.0mV
11	-195.8V	230.0	-92.0mV
12	-197.2V	222.8	-93.8mV
13	-192.5V	235.4	-102.6mV
14	-200.3V	227.8	-102.1mV
15	-192.7V	236.3	-100.2mV
16	-198.4V	224.6	-92.8mV
17	-190.8V	226.8	-101.0mV
18	-197.7V	236.2	-94.5mV
19	-197.1V	231.8	-102.6mV
20	-198.6V	225.2	-98.1mV
21	-196.8V	233.6	-100.5mV
22	-201.5V	233.8	-104.4mV
23	-199.6V	233.3	-96.5mV
24	-197.2V	232.2	-98.7mV
25	-200.3V	233.1	-103.6mV
26	-192.6V	233.5	-100.0mV
27	-196.2V	231.9	-93.6mV
28	-191.5V	225.8	-101.0mV
29	-191.0V	224.0	-98.5mV
30	-191.5V	226.3	-104.7mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 25℃
Test Date: 2015.08.17
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
31	-196.4V	221.4	-101.4mV
32	-196.5V	228.4	-92.0mV
33	-198.7V	232.3	-103.3mV
34	-195.1V	225.2	-100.8mV
35	-191.8V	224.8	-103.4mV
36	-195.5V	223.6	-97.9mV
37	-194.4V	233.6	-98.3mV
38	-201.8V	227.8	-96.6mV
39	-200.6V	229.5	-102.0mV
40	-194.8V	223.5	-104.5mV
41	-194.9V	233.3	-92.1mV
42	-200.4V	227.9	-100.0mV
43	-200.2V	229.6	-93.8mV
44	-197.6V	227.9	-98.9mV
45	-193.4V	219.9	-104.4mV
46	-192.5V	220.7	-104.5mV
47	-193.8V	223.9	-98.4mV
48	-196.1V	219.8	-95.4mV
49	-193.1V	226.7	-102.4mV
50	-192.1V	226.3	-103.7mV
51	-191.2V	232.7	-94.4mV
52	-190.9V	222.0	-103.8mV
53	-193.4V	232.4	-100.5mV
54	-198.9V	233.9	-95.0mV
55	-192.6V	234.1	-98.6mV
56	-194.3V	229.5	-94.6mV
57	-195.6V	223.3	-94.1mV
58	-192.2V	222.9	-93.8mV
59	-195.9V	233.3	-102.0mV
60	-200.3V	234.3	-104.4mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 25℃
Test Date: 2015.08.17
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
61	-195.0V	227.9	-92.9mV
62	-192.1V	218.3	-103.2mV
63	-196.6V	218.7	-105.2mV
64	-192.0V	227.2	-103.6mV
65	-193.0V	218.4	-104.3mV
66	-192.7V	223.7	-95.5mV
67	-191.8V	236.7	-99.7mV
68	-196.1V	222.6	-100.9mV
69	-197.7V	236.5	-101.1mV
70	-198.2V	227.6	-94.6mV
71	-191.1V	233.7	-93.4mV
72	-197.0V	228.8	-100.7mV
73	-196.8V	232.9	-100.8mV
74	-196.4V	228.4	-94.2mV
75	-191.9V	226.4	-92.7mV
76	-194.2V	218.8	-101.3mV
77	-191.3V	219.6	-93.3mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-194.2V	229.9	-99.7mV	-194.8V	223.3	-96.9mV
2	-200.4V	231.3	-104.9mV	-201.5V	225.8	-101.4mV
3	-201.3V	228.5	-99.3mV	-193.7V	218.5	-93.7mV
4	-193.7V	223.0	-93.2mV	-191.5V	221.3	-93.3mV
5	-194.4V	220.6	-97.2mV	-197.5V	232.5	-104.2mV
6	-193.9V	235.5	-100.0mV	-195.2V	224.3	-105.0mV
7	-195.3V	220.6	-101.3mV	-191.7V	222.9	-102.6mV
8	-195.7V	232.5	-103.5mV	-194.4V	234.5	-94.2mV
9	-198.5V	224.7	-98.3mV	-197.1V	221.9	-96.6mV
10	-197.2V	226.7	-100.3mV	-192.5V	220.9	-94.4mV
11	-198.9V	226.8	-92.2mV	-201.4V	230.6	-101.4mV
12	-196.1V	220.3	-103.3mV	-195.4V	225.5	-93.4mV
13	-200.6V	222.0	-104.7mV	-200.9V	235.9	-96.0mV
14	-194.8V	229.6	-104.9mV	-200.8V	228.8	-94.8mV
15	-201.0V	222.4	-99.8mV	-199.2V	231.2	-102.4mV
16	-196.4V	236.0	-101.2mV	-191.4V	223.1	-99.7mV
17	-200.7V	226.7	-94.2mV	-195.7V	227.5	-97.0mV
18	-193.4V	228.8	-92.3mV	-198.2V	231.2	-99.3mV
19	-201.4V	225.0	-104.5mV	-191.5V	231.2	-101.4mV
20	-197.9V	225.9	-99.7mV	-194.7V	225.9	-100.8mV
21	-197.0V	236.6	-100.4mV	-192.6V	226.5	-97.2mV
22	-194.2V	234.1	-94.8mV	-192.9V	235.4	-96.0mV
23	-192.8V	233.7	-93.2mV	-192.2V	221.2	-104.3mV
24	-191.7V	233.2	-94.3mV	-196.6V	226.8	-101.5mV
25	-200.8V	234.3	-103.1mV	-191.5V	219.6	-98.1mV
26	-201.4V	233.1	-94.2mV	-194.1V	223.8	-103.6mV
27	-193.6V	226.1	-100.9mV	-192.3V	226.8	-97.9mV
28	-199.3V	224.7	-92.2mV	-192.8V	223.3	-102.4mV
29	-193.2V	232.5	-93.6mV	-199.6V	236.6	-102.4mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-195.6V	224.5	-91.9mV	-201.3V	231.8	-94.0mV
31	-194.0V	220.1	-105.1mV	-191.7V	226.1	-98.4mV
32	-198.9V	225.9	-100.4mV	-197.8V	225.2	-98.3mV
33	-192.0V	235.4	-97.6mV	-192.6V	220.0	-95.6mV
34	-199.4V	232.1	-97.2mV	-193.0V	227.1	-100.5mV
35	-194.0V	228.1	-94.3mV	-197.3V	218.2	-100.9mV
36	-196.3V	233.0	-102.5mV	-192.2V	221.3	-98.5mV
37	-194.5V	225.9	-105.7mV	-197.8V	218.8	-94.7mV
38	-196.6V	222.2	-103.6mV	-199.1V	233.2	-103.3mV
39	-199.8V	228.2	-100.5mV	-196.5V	221.7	-101.9mV
40	-196.4V	226.7	-104.4mV	-200.9V	223.3	-101.0mV
41	-193.6V	233.0	-101.0mV	-197.5V	232.7	-92.1mV
42	-199.4V	218.7	-100.5mV	-198.4V	226.2	-95.6mV
43	-195.8V	234.9	-95.4mV	-191.1V	230.8	-105.0mV
44	-193.4V	229.5	-95.2mV	-192.5V	235.5	-98.8mV
45	-198.9V	233.3	-104.4mV	-199.5V	219.3	-93.4mV
46	-191.1V	231.9	-104.0mV	-192.7V	230.1	-103.6mV
47	-193.6V	230.2	-98.4mV	-194.8V	230.9	-105.6mV
48	-192.2V	225.2	-95.8mV	-196.4V	232.3	-97.0mV
49	-198.6V	236.7	-99.9mV	-195.6V	227.5	-100.8mV
50	-196.3V	229.5	-102.3mV	-195.8V	233.4	-99.2mV
51	-201.4V	219.7	-98.6mV	-201.6V	221.0	-96.0mV
52	-198.9V	236.0	-95.0mV	-195.5V	227.0	-102.2mV
53	-194.7V	236.5	-105.3mV	-198.4V	234.4	-92.6mV
54	-194.4V	233.6	-102.0mV	-196.6V	231.1	-95.7mV
55	-201.4V	231.0	-94.4mV	-192.4V	220.9	-98.0mV
56	-192.1V	222.8	-95.9mV	-195.0V	218.7	-97.5mV
57	-196.5V	231.1	-95.4mV	-196.7V	227.4	-94.0mV
58	-194.0V	219.5	-93.4mV	-196.1V	223.0	-101.0mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-195.3V	221.8	-98.6mV	-193.4V	221.9	-98.2mV
60	-194.1V	226.6	-99.9mV	-196.0V	231.9	-100.1mV
61	-201.8V	229.7	-95.0mV	-196.4V	224.9	-95.9mV
62	-195.1V	224.0	-101.5mV	-199.1V	231.0	-102.8mV
63	-197.6V	221.1	-95.5mV	-199.9V	233.3	-104.6mV
64	-194.4V	226.0	-92.5mV	-198.8V	222.8	-92.4mV
65	-200.8V	222.6	-95.4mV	-199.1V	235.3	-92.8mV
66	-201.1V	226.4	-99.8mV	-194.2V	234.7	-103.4mV
67	-198.7V	225.1	-95.9mV	-196.4V	233.2	-96.5mV
68	-195.9V	233.4	-104.1mV	-195.2V	229.8	-100.8mV
69	-197.2V	235.4	-105.0mV	-191.4V	235.8	-100.0mV
70	-192.2V	224.8	-98.3mV	-197.5V	231.7	-95.9mV
71	-200.5V	226.4	-102.6mV	-195.3V	224.6	-104.7mV
72	-193.7V	224.1	-102.5mV	-193.6V	229.0	-98.6mV
73	-194.3V	224.0	-100.2mV	-200.3V	227.8	-102.9mV
74	-191.5V	228.0	-98.8mV	-193.0V	227.2	-103.3mV
75	-199.7V	225.1	-93.9mV	-201.6V	226.1	-93.4mV
76	-195.2V	223.3	-105.5mV	-194.1V	236.8	-92.0mV
77	-200.0V	230.8	-98.0mV	-197.3V	222.6	-92.8mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-193.0V	235.0	-92.8mV	-201.9V	230.3	-105.7mV
2	-197.3V	218.2	-102.1mV	-194.2V	223.9	-100.9mV
3	-193.2V	227.9	-94.1mV	-195.4V	226.4	-94.4mV
4	-192.0V	225.9	-103.5mV	-193.1V	221.0	-95.6mV
5	-195.4V	235.5	-94.4mV	-198.6V	233.6	-101.4mV
6	-194.2V	230.3	-94.7mV	-194.4V	225.3	-98.3mV
7	-198.3V	235.3	-99.3mV	-201.1V	228.9	-95.0mV
8	-192.7V	233.8	-104.4mV	-195.4V	231.0	-95.4mV
9	-201.4V	229.8	-99.6mV	-200.0V	223.9	-103.5mV
10	-192.2V	232.6	-97.4mV	-196.0V	225.4	-102.2mV
11	-190.6V	231.2	-96.4mV	-193.3V	220.6	-95.8mV
12	-194.3V	235.9	-92.0mV	-201.1V	236.7	-96.7mV
13	-190.8V	233.0	-105.3mV	-200.8V	226.6	-97.1mV
14	-193.4V	229.8	-102.8mV	-200.7V	232.1	-100.7mV
15	-192.4V	223.8	-99.5mV	-195.5V	226.0	-102.1mV
16	-198.4V	223.7	-93.3mV	-200.7V	228.0	-92.6mV
17	-193.1V	227.9	-98.0mV	-198.4V	230.3	-103.9mV
18	-192.5V	223.9	-99.3mV	-197.9V	220.1	-100.2mV
19	-195.3V	231.8	-96.5mV	-199.1V	225.6	-101.8mV
20	-199.7V	229.4	-93.2mV	-192.0V	231.6	-93.8mV
21	-191.6V	227.1	-93.2mV	-194.0V	226.9	-93.5mV
22	-190.9V	219.0	-103.4mV	-199.9V	221.7	-91.9mV
23	-195.0V	223.0	-99.2mV	-197.9V	220.8	-104.7mV
24	-198.7V	230.3	-104.4mV	-201.4V	232.9	-93.0mV
25	-198.1V	222.1	-99.9mV	-192.2V	228.3	-94.1mV
26	-199.3V	224.9	-99.4mV	-192.5V	230.2	-103.3mV
27	-199.2V	218.4	-97.3mV	-191.2V	234.3	-99.9mV
28	-197.7V	227.9	-95.2mV	-201.2V	218.9	-95.2mV
29	-191.6V	228.6	-103.7mV	-193.5V	235.3	-97.1mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-198.7V	235.7	-93.0mV	-190.6V	236.8	-92.7mV
31	-194.5V	220.4	-92.1mV	-193.1V	221.6	-101.5mV
32	-201.9V	234.9	-98.6mV	-199.9V	225.6	-102.1mV
33	-192.7V	220.0	-97.7mV	-201.4V	220.5	-98.6mV
34	-197.0V	236.3	-94.9mV	-191.1V	233.1	-105.2mV
35	-193.9V	227.3	-104.4mV	-197.3V	235.2	-100.9mV
36	-194.8V	234.6	-98.2mV	-195.0V	228.5	-102.6mV
37	-198.7V	233.9	-96.1mV	-193.8V	222.4	-103.0mV
38	-200.9V	235.3	-98.1mV	-191.2V	228.9	-104.0mV
39	-191.8V	233.4	-95.0mV	-194.7V	232.1	-93.1mV
40	-200.8V	224.0	-92.7mV	-192.3V	227.7	-96.5mV
41	-194.6V	220.3	-95.0mV	-196.5V	233.1	-93.0mV
42	-193.0V	226.0	-95.7mV	-190.9V	228.0	-103.3mV
43	-192.7V	219.8	-98.6mV	-195.8V	235.7	-101.0mV
44	-198.9V	221.3	-91.8mV	-199.9V	226.9	-103.7mV
45	-194.2V	234.9	-100.9mV	-199.1V	222.8	-98.1mV
46	-201.8V	235.1	-103.0mV	-195.8V	221.7	-105.6mV
47	-191.3V	223.5	-103.3mV	-194.2V	222.7	-105.8mV
48	-192.4V	218.4	-102.2mV	-192.0V	230.6	-95.4mV
49	-199.8V	236.2	-92.3mV	-192.9V	235.8	-105.6mV
50	-201.3V	223.6	-105.1mV	-191.7V	230.7	-101.8mV
51	-193.3V	231.5	-102.2mV	-198.7V	218.1	-98.9mV
52	-195.8V	221.9	-103.3mV	-197.4V	227.0	-97.2mV
53	-196.0V	225.3	-105.8mV	-201.2V	229.9	-99.4mV
54	-194.8V	231.8	-95.5mV	-201.1V	233.8	-95.5mV
55	-200.5V	234.8	-103.7mV	-197.9V	232.3	-103.5mV
56	-199.5V	227.1	-100.2mV	-197.2V	227.6	-102.1mV
57	-191.4V	235.9	-99.5mV	-201.0V	232.9	-104.4mV
58	-199.1V	232.8	-101.9mV	-200.8V	226.3	-91.9mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 150℃, 1000Hrs
Test Date: 2015.08.17 ~ 2015.09.29
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-194.5V	236.0	-92.4mV	-192.5V	231.3	-92.4mV
60	-201.7V	235.8	-98.1mV	-194.0V	235.2	-99.3mV
61	-193.5V	228.8	-95.0mV	-199.3V	220.6	-93.7mV
62	-201.1V	220.7	-97.5mV	-197.4V	230.3	-98.0mV
63	-194.6V	218.4	-101.6mV	-201.1V	220.3	-95.3mV
64	-192.7V	221.6	-104.7mV	-192.7V	223.5	-103.5mV
65	-198.2V	222.6	-103.5mV	-199.5V	230.0	-102.6mV
66	-198.9V	222.2	-104.1mV	-196.4V	229.9	-98.7mV
67	-193.7V	231.3	-94.3mV	-195.4V	236.0	-99.5mV
68	-194.8V	235.6	-93.1mV	-199.2V	234.0	-101.2mV
69	-192.1V	219.0	-93.7mV	-201.8V	234.4	-105.0mV
70	-193.0V	236.4	-92.2mV	-193.7V	227.8	-93.3mV
71	-199.5V	227.5	-105.0mV	-193.6V	225.7	-92.6mV
72	-192.6V	224.4	-93.4mV	-201.2V	224.1	-105.1mV
73	-201.6V	220.3	-102.2mV	-201.2V	230.6	-100.3mV
74	-198.8V	223.7	-98.3mV	-195.7V	232.2	-93.8mV
75	-200.9V	222.6	-101.7mV	-200.7V	233.0	-94.1mV
76	-192.9V	221.7	-100.2mV	-191.6V	232.3	-100.4mV
77	-191.1V	220.7	-98.6mV	-194.1V	223.0	-93.5mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.17 ~ 2015.08.25
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-198.7V	225.7	-97.5mV	-194.6V	224.4	-96.1mV
2	-192.6V	230.1	-99.5mV	-192.2V	232.2	-98.8mV
3	-195.8V	228.8	-105.5mV	-193.1V	222.9	-99.9mV
4	-191.8V	229.9	-96.3mV	-195.1V	220.9	-101.8mV
5	-190.7V	227.5	-92.8mV	-195.1V	232.9	-102.5mV
6	-201.5V	225.0	-96.6mV	-198.9V	230.6	-103.7mV
7	-193.3V	233.4	-101.1mV	-197.4V	229.9	-92.5mV
8	-192.7V	227.4	-104.1mV	-194.5V	223.5	-105.5mV
9	-194.9V	224.0	-97.6mV	-193.3V	220.4	-94.7mV
10	-199.4V	229.5	-92.1mV	-192.4V	218.8	-100.8mV
11	-195.1V	219.6	-92.3mV	-193.0V	220.3	-98.7mV
12	-196.7V	226.0	-99.0mV	-200.7V	219.5	-96.7mV
13	-191.4V	231.9	-105.0mV	-192.7V	221.4	-97.9mV
14	-198.5V	226.2	-103.6mV	-201.0V	221.1	-93.0mV
15	-192.3V	235.5	-94.5mV	-196.0V	225.4	-103.3mV
16	-199.7V	221.4	-99.7mV	-194.1V	225.4	-95.2mV
17	-198.4V	232.2	-93.8mV	-201.2V	235.2	-96.3mV
18	-193.2V	225.7	-101.6mV	-193.1V	221.4	-105.0mV
19	-199.4V	227.2	-99.5mV	-199.7V	221.6	-96.4mV
20	-198.1V	226.9	-98.4mV	-200.9V	230.0	-104.2mV
21	-194.2V	220.8	-102.2mV	-199.7V	232.0	-98.8mV
22	-195.1V	228.7	-96.4mV	-201.5V	226.5	-102.6mV
23	-192.8V	226.3	-93.9mV	-196.0V	235.1	-94.0mV
24	-197.6V	234.0	-92.8mV	-193.9V	226.1	-103.5mV
25	-192.1V	221.0	-95.7mV	-192.5V	232.0	-98.3mV
26	-201.6V	234.1	-98.9mV	-192.5V	231.6	-96.1mV
27	-200.8V	220.3	-99.4mV	-200.3V	218.3	-100.0mV
28	-199.1V	236.8	-104.3mV	-196.8V	225.4	-96.0mV
29	-196.9V	227.5	-97.2mV	-193.3V	231.7	-93.5mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.17 ~ 2015.08.25
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-191.4V	223.3	-99.9mV	-198.5V	220.9	-103.4mV
31	-194.8V	232.7	-99.1mV	-197.6V	219.9	-99.2mV
32	-200.4V	220.0	-92.5mV	-199.9V	220.9	-92.4mV
33	-199.5V	231.4	-102.2mV	-193.6V	230.4	-102.0mV
34	-190.6V	219.4	-105.8mV	-198.5V	219.4	-93.3mV
35	-199.8V	228.3	-97.2mV	-191.2V	229.3	-100.1mV
36	-194.9V	226.1	-103.4mV	-197.4V	236.6	-95.1mV
37	-193.5V	223.2	-104.0mV	-195.2V	229.5	-104.2mV
38	-200.2V	231.0	-94.0mV	-194.9V	227.9	-105.2mV
39	-195.8V	230.5	-96.6mV	-194.6V	234.2	-96.7mV
40	-201.3V	229.6	-101.8mV	-194.0V	230.0	-102.6mV
41	-193.4V	224.7	-96.8mV	-198.7V	221.4	-98.5mV
42	-197.8V	227.8	-99.6mV	-194.8V	225.2	-103.7mV
43	-194.3V	236.4	-95.8mV	-199.6V	228.4	-92.6mV
44	-195.6V	223.1	-104.3mV	-194.0V	236.4	-97.3mV
45	-199.4V	229.2	-101.0mV	-199.8V	218.3	-100.5mV
46	-190.9V	219.7	-95.7mV	-195.2V	228.4	-97.7mV
47	-199.6V	234.9	-102.2mV	-197.7V	231.3	-102.8mV
48	-198.7V	226.7	-93.1mV	-200.8V	235.3	-105.8mV
49	-200.2V	219.1	-99.0mV	-197.2V	225.8	-92.2mV
50	-201.7V	221.8	-105.7mV	-200.6V	219.2	-95.8mV
51	-191.4V	221.3	-92.9mV	-198.9V	226.8	-103.0mV
52	-199.7V	230.5	-101.3mV	-195.9V	218.9	-102.6mV
53	-193.8V	234.7	-92.2mV	-192.0V	220.6	-94.7mV
54	-190.9V	232.7	-92.5mV	-198.1V	219.0	-95.1mV
55	-200.5V	223.8	-97.7mV	-196.6V	234.0	-105.2mV
56	-199.6V	230.6	-103.1mV	-193.5V	218.7	-95.3mV
57	-192.0V	233.6	-99.8mV	-194.0V	236.2	-103.9mV
58	-192.0V	225.9	-91.9mV	-193.3V	224.3	-105.3mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2015.08.17 ~ 2015.08.25
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-194.7V	236.4	-101.8mV	-191.3V	230.4	-104.2mV
60	-194.9V	232.1	-105.0mV	-195.0V	224.5	-101.6mV
61	-201.3V	221.3	-95.3mV	-192.5V	223.7	-96.7mV
62	-192.9V	236.5	-99.7mV	-200.5V	219.0	-103.4mV
63	-197.8V	219.0	-92.6mV	-196.8V	225.8	-93.9mV
64	-191.0V	224.3	-93.5mV	-193.2V	234.0	-105.1mV
65	-194.0V	221.4	-91.8mV	-197.7V	229.6	-103.4mV
66	-200.0V	235.4	-94.4mV	-199.1V	228.8	-100.2mV
67	-199.2V	229.2	-98.4mV	-191.9V	218.9	-99.0mV
68	-199.3V	235.0	-100.3mV	-196.2V	234.2	-96.4mV
69	-201.1V	235.9	-105.1mV	-194.8V	222.2	-101.5mV
70	-192.8V	232.6	-94.9mV	-192.7V	224.6	-104.0mV
71	-197.1V	231.0	-93.8mV	-191.6V	220.9	-105.5mV
72	-193.0V	222.9	-93.4mV	-196.8V	222.9	-92.2mV
73	-195.7V	220.2	-103.4mV	-200.7V	225.5	-97.2mV
74	-199.7V	227.3	-92.0mV	-196.8V	224.0	-103.6mV
75	-193.1V	232.7	-104.4mV	-199.6V	235.0	-92.2mV
76	-198.3V	227.9	-104.3mV	-191.8V	225.0	-100.5mV
77	-194.9V	230.8	-103.4mV	-194.0V	227.2	-102.3mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.17 ~ 2015.10.08
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-198.4V	219.3	-96.7mV	-200.9V	228.9	-94.0mV
2	-195.3V	233.6	-104.0mV	-191.2V	232.6	-96.5mV
3	-199.5V	223.9	-96.6mV	-191.7V	232.5	-100.6mV
4	-196.6V	229.6	-96.8mV	-194.0V	235.3	-102.0mV
5	-192.5V	225.0	-99.2mV	-194.1V	224.9	-101.2mV
6	-195.9V	221.2	-93.7mV	-191.1V	221.2	-99.4mV
7	-192.5V	224.0	-99.2mV	-200.8V	220.9	-96.4mV
8	-192.6V	229.3	-93.1mV	-191.8V	234.0	-95.7mV
9	-192.7V	229.3	-91.9mV	-199.2V	222.1	-93.9mV
10	-199.3V	219.2	-91.8mV	-191.0V	227.6	-92.9mV
11	-196.6V	229.9	-103.0mV	-192.0V	218.9	-103.5mV
12	-194.2V	230.8	-94.2mV	-200.2V	221.7	-99.9mV
13	-195.1V	222.8	-103.8mV	-199.5V	224.7	-94.0mV
14	-193.9V	228.8	-101.1mV	-191.9V	227.5	-92.8mV
15	-190.9V	220.8	-98.4mV	-196.0V	229.5	-102.9mV
16	-191.8V	218.7	-102.3mV	-197.2V	231.7	-104.1mV
17	-193.8V	233.0	-102.6mV	-194.0V	223.3	-93.4mV
18	-200.5V	223.9	-102.2mV	-198.1V	219.7	-95.3mV
19	-191.7V	227.0	-92.5mV	-198.5V	218.8	-100.0mV
20	-192.2V	235.1	-92.6mV	-197.0V	236.7	-102.9mV
21	-200.1V	229.1	-98.6mV	-196.9V	223.8	-92.3mV
22	-201.4V	230.6	-105.6mV	-192.8V	234.7	-99.2mV
23	-191.6V	222.9	-92.2mV	-200.9V	230.9	-105.4mV
24	-199.0V	218.9	-98.3mV	-200.2V	232.9	-104.8mV
25	-194.1V	221.3	-95.0mV	-196.7V	220.4	-94.9mV
26	-198.0V	220.9	-103.7mV	-195.1V	233.1	-102.0mV
27	-191.9V	222.0	-104.1mV	-196.0V	232.4	-93.1mV
28	-201.7V	221.8	-99.6mV	-192.9V	229.1	-97.1mV
29	-195.9V	227.3	-105.3mV	-192.8V	234.3	-102.4mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.17 ~ 2015.10.08
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-191.6V	225.4	-94.6mV	-195.3V	219.5	-99.4mV
31	-192.9V	227.3	-97.2mV	-199.6V	232.9	-102.1mV
32	-194.7V	233.9	-96.3mV	-197.8V	220.3	-105.1mV
33	-199.9V	220.8	-98.8mV	-193.9V	235.5	-92.8mV
34	-200.9V	228.4	-93.1mV	-198.2V	221.9	-100.3mV
35	-201.7V	231.2	-97.2mV	-199.0V	236.1	-97.0mV
36	-201.1V	223.2	-105.1mV	-201.2V	230.0	-103.6mV
37	-199.1V	222.9	-104.0mV	-197.0V	227.0	-95.8mV
38	-200.9V	235.0	-99.4mV	-198.8V	223.6	-97.1mV
39	-200.8V	232.1	-105.6mV	-196.7V	233.8	-102.5mV
40	-201.5V	229.8	-105.4mV	-200.3V	222.5	-97.8mV
41	-198.0V	228.7	-98.0mV	-197.1V	232.4	-104.1mV
42	-196.1V	230.3	-102.9mV	-194.1V	230.3	-103.2mV
43	-191.7V	219.1	-96.3mV	-201.4V	228.6	-100.7mV
44	-200.1V	222.4	-93.8mV	-193.4V	220.4	-95.3mV
45	-196.5V	225.7	-102.7mV	-194.7V	228.8	-94.8mV
46	-192.8V	233.7	-100.0mV	-190.7V	226.3	-100.7mV
47	-194.6V	235.7	-92.3mV	-192.8V	223.5	-104.7mV
48	-198.8V	235.5	-92.3mV	-197.5V	236.1	-96.1mV
49	-201.9V	224.7	-92.1mV	-199.1V	218.6	-99.1mV
50	-193.1V	231.2	-99.1mV	-198.8V	231.4	-97.5mV
51	-195.4V	231.7	-98.2mV	-198.8V	233.9	-101.9mV
52	-194.5V	229.5	-92.7mV	-194.6V	236.5	-97.1mV
53	-199.2V	230.5	-92.0mV	-195.9V	218.2	-96.2mV
54	-196.7V	231.6	-103.3mV	-193.2V	229.6	-97.5mV
55	-199.6V	222.3	-101.7mV	-192.0V	230.9	-97.8mV
56	-190.9V	222.9	-100.7mV	-193.0V	224.0	-98.9mV
57	-199.7V	228.2	-92.7mV	-198.0V	226.8	-98.6mV
58	-198.5V	235.6	-100.5mV	-199.9V	233.5	-98.7mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2015.08.17 ~ 2015.10.08
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-198.3V	224.8	-96.4mV	-201.3V	232.8	-102.3mV
60	-198.7V	224.3	-104.9mV	-196.6V	222.0	-97.5mV
61	-192.0V	220.7	-104.5mV	-195.3V	219.0	-101.6mV
62	-199.1V	225.7	-97.8mV	-200.1V	223.7	-99.3mV
63	-198.3V	225.5	-95.5mV	-195.5V	230.5	-104.1mV
64	-199.0V	223.8	-105.5mV	-196.1V	235.3	-100.5mV
65	-199.5V	218.6	-104.0mV	-194.5V	223.1	-92.8mV
66	-191.8V	226.6	-102.7mV	-199.7V	234.3	-98.6mV
67	-201.5V	229.6	-98.7mV	-191.1V	235.7	-95.0mV
68	-198.1V	222.5	-96.7mV	-192.8V	219.5	-95.6mV
69	-196.9V	222.7	-98.2mV	-195.2V	229.8	-94.1mV
70	-196.3V	231.2	-97.2mV	-196.1V	224.6	-93.1mV
71	-197.8V	226.2	-98.4mV	-191.3V	235.5	-101.4mV
72	-194.0V	221.3	-105.3mV	-196.0V	227.4	-104.7mV
73	-196.7V	222.4	-105.4mV	-191.2V	235.4	-100.0mV
74	-196.7V	232.6	-104.1mV	-200.8V	220.3	-95.4mV
75	-195.8V	226.1	-96.3mV	-193.9V	235.5	-99.6mV
76	-198.5V	230.8	-102.8mV	-197.8V	231.0	-92.9mV
77	-192.2V	233.7	-96.8mV	-199.8V	234.6	-99.7mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-192.2V	218.8	-98.3mV	-198.5V	227.6	-98.2mV
2	-195.1V	232.7	-101.9mV	-195.0V	230.1	-92.5mV
3	-193.7V	220.6	-104.3mV	-199.5V	230.7	-105.0mV
4	-193.9V	234.1	-97.3mV	-197.4V	220.6	-100.0mV
5	-191.0V	225.5	-102.9mV	-197.4V	236.6	-94.0mV
6	-197.4V	220.8	-102.5mV	-193.4V	227.6	-96.6mV
7	-192.3V	230.5	-99.7mV	-191.5V	223.3	-94.9mV
8	-196.4V	236.7	-102.2mV	-201.8V	227.3	-97.7mV
9	-195.0V	230.3	-103.8mV	-196.8V	222.5	-92.4mV
10	-200.0V	234.2	-103.5mV	-198.0V	227.0	-97.5mV
11	-200.5V	226.9	-92.9mV	-191.8V	229.8	-99.3mV
12	-198.2V	225.2	-92.0mV	-195.4V	228.4	-92.0mV
13	-195.3V	218.4	-102.6mV	-197.5V	229.4	-97.2mV
14	-190.8V	229.2	-102.8mV	-195.4V	233.3	-103.7mV
15	-200.0V	235.5	-95.8mV	-194.3V	235.3	-95.7mV
16	-199.8V	228.8	-97.8mV	-196.0V	219.2	-100.8mV
17	-190.9V	227.3	-99.7mV	-197.8V	224.7	-95.4mV
18	-192.0V	219.6	-102.5mV	-192.8V	228.0	-94.2mV
19	-197.0V	224.3	-105.1mV	-198.4V	221.4	-100.7mV
20	-200.0V	231.7	-92.4mV	-200.4V	219.7	-93.0mV
21	-200.1V	225.0	-93.4mV	-193.6V	224.7	-105.6mV
22	-192.1V	225.9	-101.7mV	-191.0V	220.9	-96.1mV
23	-194.4V	234.2	-105.7mV	-199.1V	218.4	-96.3mV
24	-194.2V	218.4	-94.0mV	-201.8V	231.1	-100.5mV
25	-195.8V	223.8	-105.4mV	-195.8V	223.1	-98.8mV
26	-190.7V	230.9	-94.7mV	-201.0V	218.8	-99.2mV
27	-200.6V	224.9	-93.2mV	-195.1V	223.9	-93.1mV
28	-197.6V	232.9	-97.3mV	-193.9V	232.5	-98.0mV
29	-201.6V	219.2	-98.8mV	-198.8V	234.9	-99.3mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-198.8V	231.3	-103.2mV	-199.1V	234.1	-102.0mV
31	-191.9V	231.1	-94.0mV	-199.7V	226.7	-105.5mV
32	-190.8V	221.0	-104.6mV	-200.7V	224.4	-95.8mV
33	-192.5V	230.0	-93.1mV	-197.9V	235.3	-95.8mV
34	-198.3V	234.4	-94.3mV	-196.4V	236.3	-104.8mV
35	-199.1V	233.6	-92.6mV	-196.3V	223.5	-93.7mV
36	-191.7V	226.7	-93.9mV	-195.4V	232.5	-104.5mV
37	-193.9V	230.0	-97.1mV	-198.7V	230.3	-105.1mV
38	-193.7V	228.1	-103.2mV	-201.8V	227.4	-99.7mV
39	-200.4V	224.4	-105.4mV	-196.1V	235.3	-98.3mV
40	-193.4V	226.7	-102.0mV	-196.4V	233.5	-104.3mV
41	-192.1V	232.9	-105.1mV	-196.8V	233.9	-101.6mV
42	-195.2V	221.9	-94.7mV	-195.3V	231.6	-103.8mV
43	-199.0V	229.8	-105.1mV	-192.8V	220.1	-97.6mV
44	-199.9V	230.8	-98.6mV	-201.2V	218.9	-105.7mV
45	-193.6V	224.6	-103.0mV	-194.1V	223.6	-95.2mV
46	-198.4V	229.3	-99.8mV	-200.3V	218.2	-92.6mV
47	-192.9V	233.8	-95.5mV	-196.2V	233.5	-98.7mV
48	-192.7V	222.1	-104.3mV	-197.4V	236.6	-102.9mV
49	-195.8V	235.9	-92.0mV	-201.6V	220.4	-99.3mV
50	-190.7V	223.5	-93.0mV	-194.4V	232.8	-99.4mV
51	-201.4V	226.4	-102.4mV	-191.2V	223.0	-97.0mV
52	-199.7V	224.2	-100.6mV	-195.8V	231.8	-97.8mV
53	-191.3V	236.3	-92.4mV	-191.5V	223.9	-104.9mV
54	-199.2V	226.3	-97.5mV	-193.0V	235.0	-101.6mV
55	-195.1V	218.5	-97.9mV	-190.9V	233.4	-93.8mV
56	-193.9V	219.0	-93.2mV	-194.5V	218.6	-94.6mV
57	-192.6V	228.3	-104.4mV	-195.7V	226.2	-100.3mV
58	-195.0V	234.3	-102.0mV	-196.3V	228.0	-105.1mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-193.2V	230.5	-96.7mV	-199.1V	231.3	-94.0mV
60	-197.0V	234.1	-93.2mV	-201.5V	221.6	-99.8mV
61	-194.5V	228.5	-102.9mV	-199.7V	234.2	-105.4mV
62	-193.3V	224.6	-101.8mV	-192.3V	218.2	-105.6mV
63	-200.2V	233.6	-92.9mV	-200.6V	228.8	-100.5mV
64	-197.6V	234.0	-102.8mV	-192.5V	235.1	-104.8mV
65	-198.2V	231.1	-94.2mV	-190.7V	231.8	-101.2mV
66	-200.2V	229.1	-96.1mV	-191.9V	230.0	-102.4mV
67	-195.2V	232.8	-97.0mV	-199.6V	236.2	-93.5mV
68	-198.9V	223.7	-103.0mV	-195.4V	230.4	-92.9mV
69	-196.0V	221.8	-102.0mV	-201.0V	228.8	-98.7mV
70	-195.6V	232.0	-105.4mV	-194.1V	218.7	-100.7mV
71	-191.0V	223.1	-96.1mV	-191.1V	234.4	-101.8mV
72	-190.9V	229.6	-99.5mV	-201.4V	229.2	-99.5mV
73	-194.2V	235.9	-98.1mV	-191.5V	229.5	-99.3mV
74	-193.4V	226.0	-98.2mV	-196.5V	219.5	-102.7mV
75	-195.7V	233.9	-105.2mV	-194.1V	221.9	-99.4mV
76	-193.9V	230.4	-97.4mV	-196.1V	228.3	-93.1mV
77	-195.8V	235.2	-99.7mV	-197.9V	228.8	-92.0mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-201.2V	229.2	-92.7mV	-194.9V	236.7	-102.8mV
2	-192.7V	223.9	-102.3mV	-192.1V	218.5	-92.9mV
3	-195.2V	228.2	-101.3mV	-194.7V	222.6	-98.3mV
4	-193.7V	233.1	-92.8mV	-197.6V	226.8	-102.3mV
5	-200.3V	230.8	-98.0mV	-201.6V	233.3	-96.1mV
6	-191.3V	233.8	-96.2mV	-192.3V	229.4	-103.4mV
7	-194.7V	235.9	-98.6mV	-193.6V	223.3	-97.6mV
8	-194.8V	235.8	-93.1mV	-193.9V	231.7	-92.2mV
9	-191.1V	234.2	-100.2mV	-195.5V	225.3	-95.9mV
10	-198.7V	227.9	-95.9mV	-196.4V	229.4	-94.6mV
11	-192.6V	220.0	-92.6mV	-191.5V	222.0	-95.5mV
12	-199.3V	229.9	-103.2mV	-197.1V	219.4	-98.6mV
13	-199.2V	233.5	-98.2mV	-199.4V	225.0	-93.8mV
14	-192.3V	233.3	-94.1mV	-194.4V	218.6	-102.6mV
15	-194.9V	221.5	-99.4mV	-193.7V	233.6	-101.2mV
16	-193.6V	227.7	-96.2mV	-195.9V	233.8	-104.3mV
17	-197.3V	235.4	-104.6mV	-196.3V	218.7	-105.1mV
18	-195.2V	222.2	-93.8mV	-192.4V	228.8	-103.0mV
19	-200.0V	223.8	-93.4mV	-191.3V	226.8	-101.4mV
20	-197.6V	223.8	-99.9mV	-200.5V	222.3	-100.0mV
21	-194.4V	234.3	-98.5mV	-197.8V	228.5	-105.3mV
22	-192.3V	228.3	-99.7mV	-194.2V	218.4	-103.1mV
23	-194.8V	221.7	-95.0mV	-192.2V	229.7	-101.0mV
24	-201.6V	221.9	-100.1mV	-197.8V	220.9	-103.3mV
25	-191.6V	225.2	-93.1mV	-196.1V	228.0	-103.2mV
26	-193.5V	220.9	-94.9mV	-193.4V	228.2	-92.2mV
27	-201.7V	220.4	-104.0mV	-199.3V	229.9	-94.6mV
28	-193.7V	222.6	-93.5mV	-193.5V	227.3	-99.5mV
29	-200.5V	230.7	-92.7mV	-200.4V	232.2	-99.7mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
30	-191.0V	234.0	-103.1mV	-198.5V	222.5	-102.2mV
31	-198.9V	232.7	-94.1mV	-201.7V	231.8	-104.4mV
32	-194.7V	225.8	-94.1mV	-193.4V	218.1	-98.3mV
33	-197.1V	228.3	-103.7mV	-191.7V	233.9	-100.7mV
34	-197.0V	218.6	-100.3mV	-195.8V	225.6	-96.0mV
35	-196.7V	230.8	-96.1mV	-201.2V	218.2	-96.5mV
36	-195.6V	225.1	-105.7mV	-199.1V	236.3	-95.6mV
37	-193.0V	225.2	-102.5mV	-198.9V	230.0	-99.8mV
38	-190.8V	230.9	-93.4mV	-195.1V	233.3	-99.2mV
39	-192.9V	224.1	-100.2mV	-197.8V	228.2	-103.9mV
40	-198.9V	220.6	-94.6mV	-197.5V	235.2	-92.2mV
41	-192.9V	229.3	-97.8mV	-194.1V	235.7	-95.2mV
42	-191.3V	220.9	-96.5mV	-192.7V	230.8	-100.9mV
43	-191.8V	228.4	-101.2mV	-196.8V	230.2	-97.3mV
44	-193.6V	235.8	-104.2mV	-195.9V	228.5	-95.2mV
45	-193.2V	233.5	-105.0mV	-196.0V	218.8	-99.2mV
46	-199.8V	221.5	-102.5mV	-191.3V	222.3	-93.1mV
47	-201.0V	233.8	-97.8mV	-193.6V	221.8	-101.0mV
48	-197.5V	224.5	-102.2mV	-193.5V	232.9	-103.7mV
49	-196.2V	219.8	-104.6mV	-192.9V	223.0	-97.1mV
50	-194.8V	226.7	-97.6mV	-195.8V	219.4	-105.3mV
51	-191.2V	222.2	-100.3mV	-196.5V	229.2	-103.1mV
52	-200.0V	225.9	-92.1mV	-193.5V	231.8	-92.4mV
53	-193.2V	235.8	-97.1mV	-192.5V	225.0	-92.3mV
54	-194.9V	219.1	-97.1mV	-194.6V	218.3	-92.2mV
55	-201.6V	236.5	-93.5mV	-196.8V	227.9	-98.3mV
56	-192.6V	235.3	-93.2mV	-195.2V	230.5	-97.5mV
57	-191.8V	218.9	-92.3mV	-193.1V	234.9	-96.5mV
58	-201.8V	235.2	-99.0mV	-192.9V	232.8	-96.6mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2015.08.25 ~ 2015.10.06
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
59	-191.1V	234.4	-96.0mV	-192.1V	222.2	-96.0mV
60	-195.5V	226.9	-95.8mV	-197.8V	220.6	-103.2mV
61	-192.6V	218.4	-101.6mV	-197.4V	228.9	-96.5mV
62	-198.7V	226.8	-97.4mV	-192.4V	227.6	-100.7mV
63	-194.3V	225.1	-97.2mV	-194.6V	220.8	-94.6mV
64	-195.7V	224.6	-105.1mV	-200.5V	231.5	-96.5mV
65	-200.5V	218.8	-105.7mV	-198.5V	223.5	-96.0mV
66	-191.8V	229.2	-101.3mV	-198.6V	223.4	-97.8mV
67	-198.9V	219.6	-94.0mV	-199.1V	231.2	-102.8mV
68	-190.9V	235.4	-99.6mV	-195.9V	218.8	-105.5mV
69	-199.9V	223.9	-99.1mV	-195.8V	228.7	-99.0mV
70	-195.3V	219.8	-92.3mV	-201.5V	224.6	-96.9mV
71	-196.7V	226.7	-101.4mV	-197.6V	223.8	-105.3mV
72	-199.5V	230.0	-99.5mV	-198.7V	236.5	-94.2mV
73	-200.9V	234.7	-94.5mV	-199.2V	221.9	-99.7mV
74	-195.9V	233.5	-102.9mV	-197.5V	225.7	-94.1mV
75	-200.3V	218.7	-97.9mV	-197.4V	235.6	-94.9mV
76	-192.9V	230.8	-105.1mV	-193.4V	232.8	-91.9mV
77	-196.1V	219.4	-92.5mV	-195.0V	234.3	-103.3mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T151008-106
Part No : BCP5401
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -150V@IC=-1mA, IB=0 ； 60 < hFE < 240@VCE=-5V, IC=-10mA
VCE(sat) < -500mV@IC=-50mA, IB=-5mA
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2015.10.08
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)	$V_{(BR)CEO}$ (V)	h_{FE}	$V_{CE(sat)}$ (mV)
1	-199.3V	226.9	-97.3mV	-199.7V	233.1	-103.8mV
2	-200.4V	234.2	-105.6mV	-200.1V	222.2	-95.9mV
3	-198.2V	222.7	-93.4mV	-193.4V	230.8	-92.9mV
4	-201.8V	229.6	-99.4mV	-191.0V	230.1	-97.7mV
5	-194.1V	222.7	-101.5mV	-192.7V	236.3	-97.5mV
6	-198.8V	228.7	-94.0mV	-196.5V	227.1	-95.5mV
7	-198.8V	226.1	-92.8mV	-190.9V	219.7	-104.1mV
8	-197.9V	220.1	-99.9mV	-197.6V	228.2	-96.2mV
9	-198.5V	236.5	-100.0mV	-199.4V	231.8	-93.7mV
10	-197.2V	227.4	-92.7mV	-200.9V	220.8	-104.6mV

Made By: King Huang

Approval: Peter Yang