www.SeCosGmbH.com

Headquarter Address:
8F.No.33, Lane 155, Sec.3, Bei-Shen Rd.,
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TEL: +886-2-26620988
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Product/Process Change Notification

PCN#	Effective Date	Issue Date
2015-10-21C-10	2016/2/1	2015/10/21

PCN Classification	Product Category
Major	Transistor

Subject

Change the assembly house.

Affected Product(s)

BCP56

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)

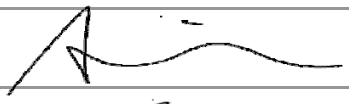
Assembly house.

Impact(s)

None

Attachment(s)

Reliability Test Report. Package Information.

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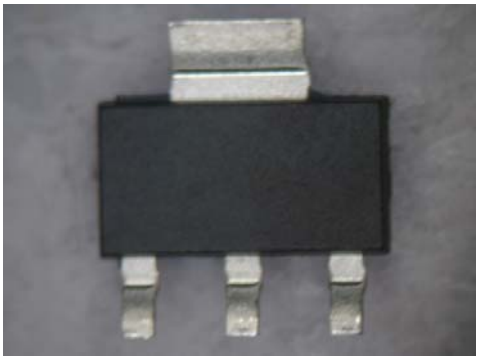
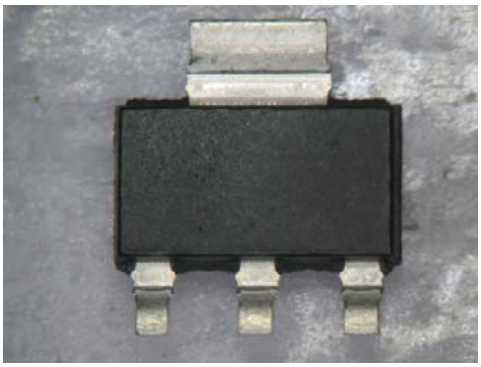
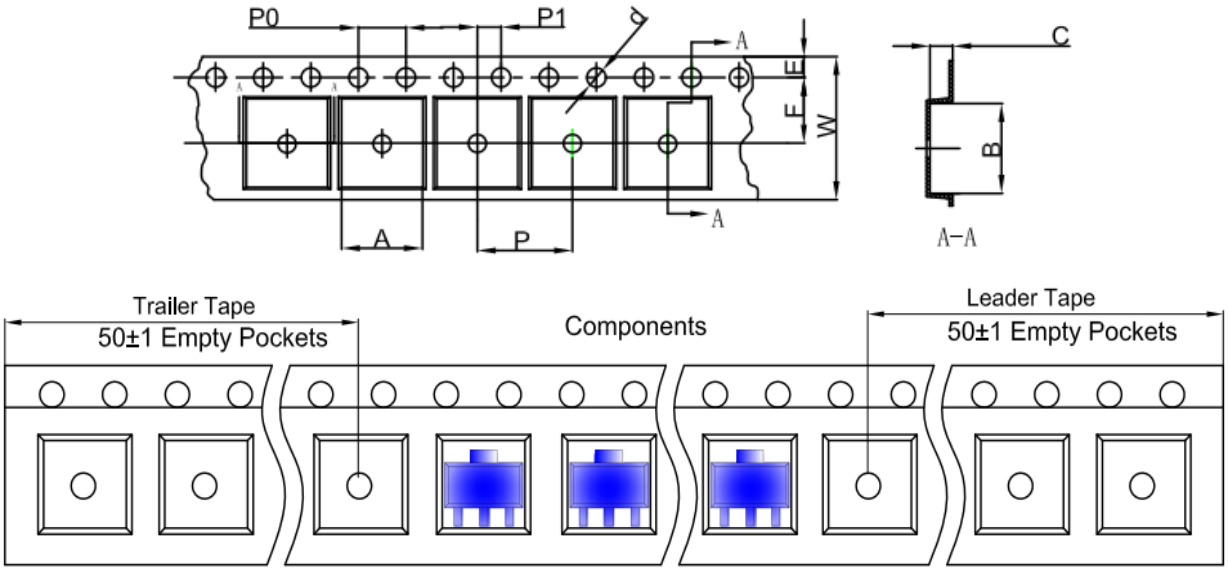
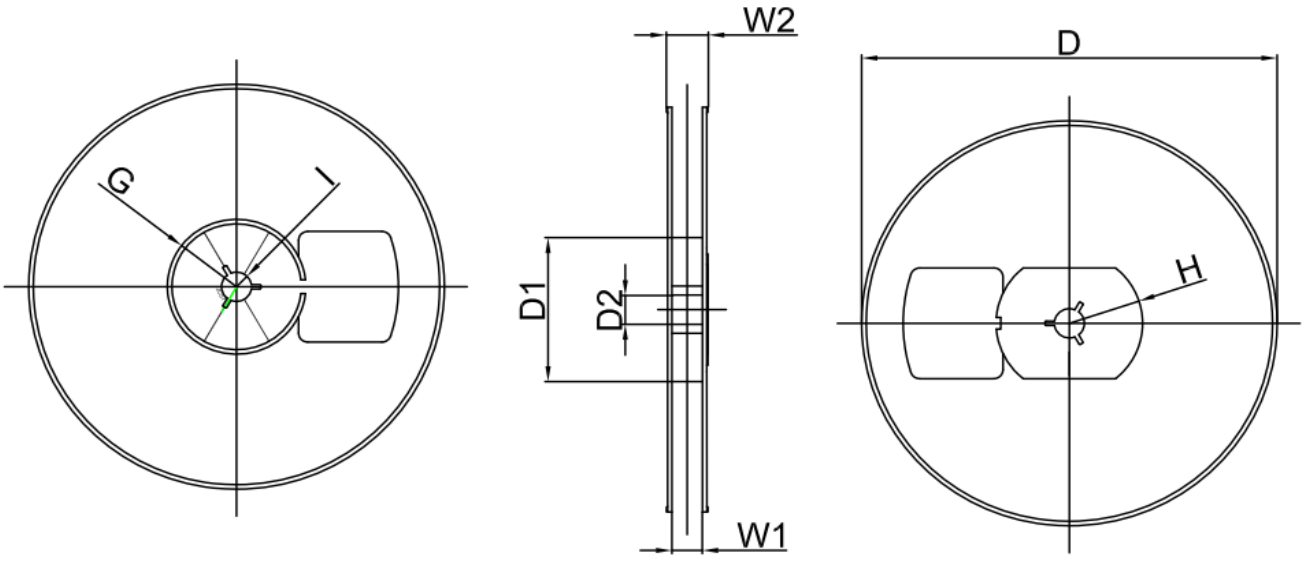
Exterior comparison Chart	
Original	New
	
Top View	Top View
	
Back View	Back View

Elektronische Bauelemente

Packaging Information
Taping Specification

SOT-223





Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	13.00	R30.00	R32.00	R6.50	13.20	16.50

Reel	Reel Size	Box	Box Size (mm)	Carton	Carton Size (mm)
1,000 pcs	7 inch	10,000 pcs	150*190*200	80,000	300*420*410

SeCoS Corporation

Reliability Testing Summary Report

Date: 2015/10/08 Document No.: SI15 -10-103

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	BCP56	150 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	BCP56	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	BCP56	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	BCP56	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	BCP56	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	BCP56	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	BCP56	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 : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.73V	114.5	127.3mV
2	100.21V	127.7	99.0mV
3	102.13V	123.6	131.6mV
4	96.77V	116.0	112.9mV
5	103.13V	120.1	111.4mV
6	104.27V	121.5	113.5mV
7	98.36V	125.9	130.9mV
8	99.93V	115.2	116.9mV
9	104.54V	125.5	111.1mV
10	100.02V	127.4	109.4mV
11	101.37V	120.0	124.6mV
12	102.81V	122.8	101.4mV
13	97.49V	125.5	114.5mV
14	98.41V	114.1	122.3mV
15	104.29V	121.0	97.0mV
16	103.60V	119.0	123.5mV
17	98.30V	124.5	100.0mV
18	102.56V	126.6	114.4mV
19	97.66V	125.9	107.8mV
20	101.98V	126.8	122.1mV
21	97.80V	113.7	109.4mV
22	100.38V	122.6	114.1mV
23	98.13V	127.7	114.7mV
24	96.85V	114.2	111.3mV
25	103.17V	119.6	101.8mV
26	104.33V	113.8	126.4mV
27	100.84V	126.5	120.4mV
28	97.36V	126.1	127.3mV
29	103.22V	124.0	113.3mV
30	103.21V	116.2	119.9mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	96.08V	124.4	104.9mV
32	98.79V	127.5	104.9mV
33	99.57V	125.1	119.8mV
34	103.02V	114.6	130.7mV
35	101.77V	127.4	119.7mV
36	99.46V	120.1	124.6mV
37	100.36V	113.8	114.3mV
38	96.00V	123.3	121.9mV
39	103.75V	123.3	112.9mV
40	98.76V	117.8	122.9mV
41	96.24V	121.3	100.7mV
42	100.77V	127.4	113.8mV
43	102.94V	117.7	108.6mV
44	102.43V	127.8	124.7mV
45	103.00V	126.9	121.9mV
46	100.54V	122.9	104.8mV
47	99.51V	117.4	101.7mV
48	104.22V	122.3	123.5mV
49	101.87V	119.6	126.8mV
50	101.42V	115.9	103.8mV
51	104.35V	122.9	104.6mV
52	96.99V	124.5	121.1mV
53	97.74V	127.9	118.6mV
54	95.96V	115.5	106.2mV
55	97.55V	118.5	118.7mV
56	102.99V	127.1	127.0mV
57	97.01V	123.1	97.2mV
58	101.30V	121.5	96.7mV
59	104.27V	115.3	123.6mV
60	99.97V	127.4	122.8mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	97.64V	123.3	131.9mV
62	97.51V	118.2	111.1mV
63	103.90V	124.5	105.3mV
64	98.41V	124.4	127.8mV
65	99.41V	124.7	111.9mV
66	100.18V	116.8	100.9mV
67	104.38V	122.2	126.5mV
68	103.95V	118.9	98.7mV
69	102.11V	116.6	100.9mV
70	97.67V	114.1	121.2mV
71	102.54V	120.4	107.4mV
72	95.91V	117.7	106.8mV
73	97.52V	117.4	99.3mV
74	103.27V	116.0	124.7mV
75	102.72V	126.3	113.0mV
76	98.45V	125.1	102.2mV
77	101.90V	119.7	117.5mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	98.9V	127.2	115.9mV	103.4V	127.5	123.2mV
2	99.8V	127.1	114.0mV	102.4V	123.7	102.9mV
3	103.3V	118.5	123.2mV	98.6V	119.4	114.4mV
4	103.4V	121.2	108.6mV	97.4V	117.5	106.0mV
5	102.5V	126.1	96.5mV	104.0V	118.6	128.0mV
6	100.7V	122.8	100.8mV	101.0V	124.2	110.3mV
7	99.7V	119.0	112.2mV	103.8V	118.7	129.0mV
8	101.9V	120.9	96.2mV	100.9V	122.3	111.5mV
9	98.4V	118.4	96.7mV	101.8V	126.8	100.0mV
10	97.9V	122.1	104.6mV	97.9V	126.8	102.1mV
11	100.9V	126.4	105.6mV	102.6V	121.4	110.8mV
12	96.4V	126.0	128.0mV	100.8V	124.2	106.7mV
13	97.8V	127.2	108.0mV	100.2V	127.0	99.6mV
14	100.2V	125.3	108.1mV	99.9V	115.8	131.5mV
15	96.4V	123.8	130.5mV	98.4V	118.8	120.6mV
16	98.5V	114.0	131.4mV	97.5V	127.7	101.4mV
17	99.3V	118.1	107.9mV	100.3V	115.3	97.8mV
18	103.8V	126.3	103.7mV	97.9V	124.1	118.5mV
19	102.2V	123.3	131.7mV	102.8V	125.9	97.1mV
20	100.7V	123.5	110.1mV	102.7V	118.2	101.0mV
21	96.2V	114.4	117.9mV	98.0V	127.2	106.9mV
22	103.8V	117.6	98.6mV	98.4V	117.1	120.7mV
23	102.0V	118.8	124.2mV	99.0V	127.3	109.9mV
24	101.9V	127.6	105.3mV	97.0V	124.0	120.6mV
25	103.6V	119.0	128.7mV	98.4V	123.5	131.0mV
26	101.5V	114.2	99.0mV	101.0V	120.8	113.4mV
27	100.2V	115.0	99.5mV	96.0V	118.7	128.9mV
28	98.3V	123.8	127.4mV	102.1V	128.0	129.2mV
29	99.6V	123.0	104.8mV	97.0V	120.7	121.6mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	104.6V	125.1	107.1mV	96.9V	120.9	122.2mV
31	102.0V	125.7	101.2mV	96.3V	124.2	122.5mV
32	99.6V	120.4	99.6mV	104.1V	114.8	97.8mV
33	102.1V	125.0	124.7mV	104.5V	122.6	128.6mV
34	101.3V	127.9	126.2mV	102.8V	116.2	121.1mV
35	103.4V	127.1	102.9mV	97.7V	126.9	99.5mV
36	102.7V	121.3	111.5mV	104.6V	114.4	100.6mV
37	96.9V	121.7	101.0mV	100.9V	117.3	114.7mV
38	99.5V	123.8	109.3mV	104.3V	117.0	104.0mV
39	100.5V	121.4	98.0mV	97.1V	113.7	114.4mV
40	103.2V	121.0	101.6mV	102.6V	120.6	126.3mV
41	101.5V	126.5	109.1mV	102.0V	121.3	102.1mV
42	102.8V	126.6	119.2mV	101.2V	116.4	113.4mV
43	103.8V	117.0	126.0mV	97.1V	115.7	98.5mV
44	98.7V	123.9	131.1mV	100.7V	124.5	102.5mV
45	97.3V	123.1	110.7mV	99.7V	115.0	115.6mV
46	96.0V	119.9	122.3mV	100.7V	122.2	101.9mV
47	102.9V	118.6	117.5mV	97.8V	127.3	120.3mV
48	102.0V	121.1	123.1mV	99.7V	114.1	130.4mV
49	103.0V	120.9	126.4mV	96.9V	117.6	107.5mV
50	99.5V	124.7	98.7mV	99.3V	124.7	118.4mV
51	97.6V	126.0	119.5mV	98.8V	119.4	121.3mV
52	97.8V	125.5	124.1mV	96.9V	123.1	117.6mV
53	103.5V	119.2	110.6mV	104.1V	115.8	117.8mV
54	96.2V	126.8	116.6mV	104.7V	116.7	129.1mV
55	104.4V	117.0	114.9mV	100.7V	116.6	103.2mV
56	98.2V	124.9	99.3mV	101.9V	118.0	110.1mV
57	102.7V	114.7	105.5mV	102.7V	117.9	98.2mV
58	97.0V	121.9	99.1mV	96.0V	126.4	116.6mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	97.1V	113.9	125.9mV	97.3V	122.9	101.4mV
60	97.9V	115.8	125.6mV	99.5V	119.9	126.8mV
61	100.2V	116.6	123.4mV	98.0V	123.0	127.7mV
62	100.3V	115.1	117.7mV	96.3V	126.2	113.1mV
63	101.0V	114.0	106.3mV	104.7V	115.1	102.1mV
64	102.3V	117.3	111.5mV	99.7V	126.2	111.5mV
65	101.5V	125.0	101.0mV	103.6V	123.0	96.8mV
66	99.4V	118.6	115.1mV	101.7V	122.8	100.5mV
67	98.2V	123.6	130.1mV	97.5V	118.1	119.9mV
68	98.7V	115.8	122.3mV	99.5V	117.5	128.8mV
69	103.7V	122.3	99.3mV	97.2V	127.2	102.0mV
70	97.2V	124.2	131.3mV	102.7V	122.6	113.5mV
71	99.9V	119.4	125.0mV	102.3V	119.8	119.6mV
72	99.7V	127.7	119.8mV	97.7V	114.2	123.0mV
73	100.5V	118.1	98.1mV	100.0V	116.9	103.2mV
74	96.4V	119.6	127.2mV	101.8V	123.6	115.9mV
75	98.3V	125.3	96.2mV	102.6V	122.8	113.2mV
76	103.2V	115.1	109.1mV	104.2V	123.1	113.2mV
77	98.9V	121.1	130.7mV	100.4V	122.4	109.1mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	99.1V	120.7	117.5mV	97.4V	119.9	113.4mV
2	97.8V	124.7	117.3mV	102.5V	113.6	108.3mV
3	101.6V	120.9	115.5mV	100.4V	115.2	104.2mV
4	101.3V	118.3	125.4mV	102.3V	122.7	106.8mV
5	98.5V	127.4	121.7mV	97.8V	121.3	127.1mV
6	103.6V	121.8	102.7mV	103.7V	117.1	100.7mV
7	98.0V	126.7	97.4mV	99.2V	115.9	109.2mV
8	102.8V	127.9	104.2mV	100.4V	123.8	115.9mV
9	98.0V	116.4	126.6mV	97.5V	127.0	129.7mV
10	99.4V	127.2	96.0mV	98.9V	117.4	123.1mV
11	100.5V	114.0	113.2mV	96.1V	120.2	126.4mV
12	104.2V	119.0	108.8mV	99.1V	124.7	102.5mV
13	103.5V	124.7	128.4mV	97.9V	117.9	124.3mV
14	101.1V	115.4	124.6mV	98.2V	126.0	130.9mV
15	99.8V	121.1	106.6mV	103.2V	122.3	114.5mV
16	103.7V	115.1	116.9mV	101.9V	122.8	97.6mV
17	96.5V	122.2	118.3mV	100.6V	117.4	104.8mV
18	101.0V	122.0	120.0mV	97.4V	125.7	130.8mV
19	100.1V	125.8	108.6mV	100.5V	118.2	120.1mV
20	96.8V	113.8	121.1mV	96.5V	124.9	114.0mV
21	102.9V	125.1	99.5mV	97.1V	126.4	121.3mV
22	102.9V	121.7	100.7mV	97.8V	124.9	99.4mV
23	99.4V	123.0	104.6mV	96.2V	124.4	98.0mV
24	96.4V	118.2	113.6mV	96.4V	115.8	106.9mV
25	100.8V	119.7	116.8mV	102.4V	123.6	130.5mV
26	97.3V	126.7	100.5mV	99.3V	122.5	113.4mV
27	98.5V	126.2	109.0mV	102.9V	126.7	124.9mV
28	103.3V	120.2	101.6mV	97.9V	121.6	101.1mV
29	99.3V	117.0	121.5mV	102.0V	118.5	106.6mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	99.8V	122.2	120.6mV	103.7V	122.4	107.1mV
31	103.2V	118.0	131.3mV	102.8V	119.4	126.0mV
32	100.7V	121.2	113.3mV	102.8V	118.6	109.4mV
33	98.5V	114.7	119.2mV	97.7V	116.9	128.7mV
34	102.5V	126.2	116.1mV	104.5V	117.5	98.0mV
35	101.5V	119.1	96.1mV	104.1V	126.4	96.8mV
36	100.6V	115.6	117.9mV	97.5V	117.2	127.4mV
37	103.2V	117.6	99.5mV	98.3V	124.7	103.1mV
38	99.2V	124.2	105.5mV	102.7V	122.5	118.2mV
39	98.3V	114.7	99.0mV	100.6V	114.3	107.0mV
40	103.7V	121.6	102.4mV	97.9V	127.5	101.3mV
41	97.2V	119.3	113.5mV	103.4V	115.8	126.0mV
42	98.9V	119.1	96.5mV	97.3V	121.1	111.2mV
43	96.7V	115.6	116.6mV	96.4V	116.5	115.5mV
44	102.7V	113.9	98.4mV	103.4V	127.4	107.0mV
45	104.6V	125.7	122.7mV	96.4V	115.9	127.6mV
46	101.2V	124.7	114.5mV	104.5V	115.0	107.8mV
47	103.4V	115.6	109.9mV	97.8V	113.8	103.5mV
48	103.3V	119.8	127.5mV	102.0V	116.2	119.5mV
49	96.9V	127.2	121.0mV	100.6V	116.6	128.2mV
50	100.4V	127.3	122.2mV	96.1V	117.7	115.1mV
51	98.2V	114.7	129.8mV	96.5V	123.4	106.2mV
52	103.8V	117.0	101.2mV	99.0V	127.4	97.6mV
53	97.3V	127.7	108.8mV	96.6V	119.8	113.0mV
54	103.5V	119.1	128.0mV	103.7V	118.4	119.5mV
55	100.4V	118.0	104.1mV	103.7V	115.8	118.3mV
56	102.6V	117.1	128.9mV	104.7V	123.5	99.7mV
57	98.4V	124.8	102.2mV	97.7V	128.0	100.1mV
58	97.1V	119.9	106.8mV	99.9V	121.6	125.1mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	96.9V	124.7	98.2mV	96.8V	123.0	124.5mV
60	102.4V	118.5	101.7mV	98.7V	123.0	107.9mV
61	104.3V	127.2	105.2mV	101.4V	127.4	106.2mV
62	100.1V	122.7	109.9mV	97.0V	124.1	116.5mV
63	99.3V	125.8	100.8mV	98.2V	127.8	99.2mV
64	99.8V	123.0	97.0mV	101.5V	119.1	111.9mV
65	100.6V	119.4	117.6mV	97.9V	125.3	120.7mV
66	102.9V	126.6	108.0mV	102.3V	113.7	130.3mV
67	104.0V	126.1	131.8mV	101.8V	125.5	116.4mV
68	102.6V	119.8	96.4mV	97.2V	124.2	124.3mV
69	102.1V	114.0	105.9mV	96.2V	126.6	108.0mV
70	101.9V	118.8	128.4mV	104.0V	121.4	126.3mV
71	96.3V	126.8	113.9mV	99.2V	113.8	110.4mV
72	96.0V	115.7	120.8mV	99.2V	121.7	110.3mV
73	99.6V	121.4	97.8mV	100.8V	126.6	114.7mV
74	102.0V	117.5	96.2mV	103.7V	127.0	117.9mV
75	104.1V	121.3	97.6mV	100.7V	115.3	111.7mV
76	96.3V	117.4	100.4mV	103.2V	114.0	100.2mV
77	96.7V	127.8	101.8mV	99.4V	116.0	121.9mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.9V	116.3	112.1mV	96.3V	117.2	103.5mV
2	99.6V	124.0	119.5mV	98.0V	123.7	110.7mV
3	100.8V	120.6	121.8mV	96.0V	126.2	128.7mV
4	98.4V	116.9	120.4mV	103.6V	121.9	119.9mV
5	99.0V	127.1	109.9mV	99.6V	116.7	112.5mV
6	96.4V	120.4	122.7mV	101.1V	124.5	102.2mV
7	97.5V	118.6	127.7mV	103.9V	119.2	99.6mV
8	97.9V	127.0	106.4mV	96.9V	125.5	114.0mV
9	98.0V	120.3	115.7mV	97.5V	119.5	129.9mV
10	98.7V	124.2	122.1mV	104.3V	118.3	122.3mV
11	102.4V	120.1	98.3mV	99.0V	119.0	129.1mV
12	103.5V	115.4	127.3mV	98.7V	122.1	113.8mV
13	96.7V	119.9	116.7mV	103.7V	123.6	111.6mV
14	103.4V	113.6	106.3mV	97.0V	124.9	129.8mV
15	103.0V	115.1	120.1mV	99.6V	118.6	118.5mV
16	99.3V	127.4	122.7mV	103.3V	121.1	129.1mV
17	96.3V	127.5	118.5mV	104.6V	123.9	96.6mV
18	104.4V	114.1	121.5mV	97.4V	124.5	111.9mV
19	104.3V	116.9	126.3mV	97.5V	121.7	110.7mV
20	97.0V	125.5	105.2mV	104.5V	124.0	120.1mV
21	102.0V	114.6	105.7mV	101.1V	118.3	108.3mV
22	104.2V	123.5	123.1mV	101.3V	123.1	130.7mV
23	104.5V	121.7	105.3mV	97.0V	121.2	104.8mV
24	103.2V	114.2	121.6mV	100.3V	125.1	97.2mV
25	100.4V	114.9	129.0mV	101.4V	116.1	111.0mV
26	97.8V	123.7	114.9mV	97.3V	125.2	112.2mV
27	98.8V	126.8	119.4mV	104.6V	120.9	122.6mV
28	100.2V	117.2	124.7mV	101.8V	125.5	123.5mV
29	102.7V	114.7	112.0mV	97.3V	115.8	118.8mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	100.7V	116.9	101.0mV	103.0V	126.8	125.3mV
31	104.2V	117.9	103.9mV	101.2V	125.7	103.9mV
32	102.3V	118.9	126.6mV	103.5V	115.1	127.6mV
33	103.3V	126.5	100.8mV	102.8V	122.3	103.4mV
34	99.8V	120.0	110.1mV	103.5V	119.8	112.9mV
35	102.3V	117.6	114.4mV	103.4V	117.0	114.4mV
36	103.1V	115.0	117.3mV	103.8V	127.9	111.4mV
37	98.0V	121.4	107.0mV	102.4V	127.0	102.7mV
38	96.4V	121.6	126.2mV	101.9V	126.8	108.2mV
39	103.7V	123.6	108.4mV	100.3V	125.0	97.7mV
40	96.7V	125.5	125.3mV	98.0V	114.7	123.7mV
41	96.0V	124.9	115.1mV	97.4V	124.6	109.8mV
42	99.8V	114.1	127.9mV	100.4V	126.5	123.3mV
43	100.0V	114.4	125.2mV	96.9V	114.6	117.4mV
44	103.4V	119.5	96.9mV	98.3V	124.4	104.0mV
45	101.3V	115.3	111.2mV	103.1V	125.7	102.3mV
46	96.1V	122.7	99.3mV	101.1V	128.0	106.8mV
47	102.9V	126.2	124.2mV	96.8V	127.5	98.7mV
48	97.0V	120.0	112.3mV	99.3V	126.9	123.4mV
49	96.8V	126.7	122.5mV	101.5V	122.8	125.5mV
50	101.5V	115.4	121.9mV	102.5V	114.9	102.9mV
51	101.1V	125.1	119.4mV	96.6V	115.0	106.0mV
52	100.1V	127.7	125.8mV	102.6V	114.4	130.7mV
53	104.0V	116.8	105.2mV	101.4V	116.0	119.5mV
54	98.7V	121.0	108.6mV	96.0V	126.9	131.0mV
55	97.7V	121.7	104.3mV	101.6V	124.3	104.9mV
56	102.6V	116.2	129.7mV	104.0V	125.4	99.4mV
57	101.3V	121.2	119.4mV	101.8V	117.4	114.1mV
58	100.6V	123.7	117.2mV	104.5V	125.4	104.0mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	100.4V	126.3	129.4mV	104.3V	118.5	111.7mV
60	99.4V	117.5	120.1mV	103.2V	115.7	120.1mV
61	101.1V	123.6	124.5mV	98.6V	121.3	129.5mV
62	99.3V	116.3	119.8mV	100.1V	127.1	100.4mV
63	103.5V	121.2	102.6mV	101.0V	115.6	109.7mV
64	101.5V	116.7	109.9mV	100.0V	126.7	113.9mV
65	102.3V	122.1	99.8mV	101.5V	125.7	107.4mV
66	102.4V	118.3	128.8mV	103.8V	125.6	125.5mV
67	102.8V	123.6	122.4mV	100.9V	117.9	110.5mV
68	103.8V	120.7	97.3mV	102.3V	115.5	131.0mV
69	96.9V	119.9	97.5mV	103.6V	117.0	119.4mV
70	102.5V	121.5	102.9mV	104.3V	125.6	114.4mV
71	102.4V	117.9	127.6mV	100.5V	121.0	108.3mV
72	96.2V	116.8	109.2mV	100.4V	114.9	129.9mV
73	103.0V	117.5	115.2mV	97.7V	122.2	122.4mV
74	102.4V	118.1	124.1mV	102.1V	126.0	97.3mV
75	98.7V	120.1	112.4mV	99.6V	117.6	119.4mV
76	98.4V	123.2	113.4mV	98.6V	114.7	106.2mV
77	100.9V	120.0	114.9mV	100.4V	115.2	114.7mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.7V	119.8	116.2mV	96.5V	116.6	103.6mV
2	100.8V	126.7	104.4mV	102.8V	126.8	124.2mV
3	101.4V	122.3	132.1mV	98.7V	115.5	100.8mV
4	96.9V	122.4	99.9mV	98.9V	121.1	118.4mV
5	103.3V	121.5	105.9mV	104.7V	124.0	108.3mV
6	101.3V	119.6	127.7mV	102.6V	123.4	97.1mV
7	98.0V	123.4	104.6mV	99.1V	120.3	103.6mV
8	102.1V	115.2	120.5mV	95.9V	117.5	130.1mV
9	100.7V	118.0	124.5mV	101.1V	127.8	106.8mV
10	97.1V	124.6	128.5mV	104.4V	126.2	121.4mV
11	103.6V	127.9	115.5mV	101.7V	119.1	97.0mV
12	100.7V	113.6	105.1mV	100.6V	124.2	96.1mV
13	98.0V	117.5	109.9mV	96.2V	114.9	114.0mV
14	103.5V	123.8	115.7mV	104.5V	121.9	128.1mV
15	99.8V	117.7	119.6mV	97.1V	125.2	104.8mV
16	97.0V	114.0	110.8mV	103.5V	124.1	116.2mV
17	99.4V	119.7	122.5mV	98.6V	124.2	108.1mV
18	99.4V	121.8	103.7mV	102.8V	113.6	128.0mV
19	96.8V	122.5	103.4mV	97.3V	117.5	116.1mV
20	103.1V	127.2	117.5mV	96.4V	121.6	131.8mV
21	100.1V	119.2	118.6mV	102.4V	122.9	120.2mV
22	97.7V	116.5	97.9mV	104.5V	116.7	107.6mV
23	99.1V	122.6	96.4mV	103.3V	127.1	102.4mV
24	100.3V	122.8	119.0mV	104.6V	123.0	129.3mV
25	96.1V	122.5	113.0mV	102.6V	125.5	119.0mV
26	100.3V	121.0	107.7mV	103.5V	115.4	116.5mV
27	99.9V	126.5	109.3mV	99.2V	119.2	112.8mV
28	104.7V	118.2	115.2mV	104.3V	114.7	120.2mV
29	98.5V	114.2	112.6mV	103.4V	123.5	104.4mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.8V	115.8	118.3mV	100.6V	121.5	113.4mV
31	96.6V	118.4	100.0mV	104.4V	127.2	96.4mV
32	98.6V	118.9	108.3mV	97.1V	119.9	111.5mV
33	97.7V	123.6	102.3mV	104.1V	120.5	115.6mV
34	96.9V	119.9	97.2mV	98.4V	115.4	117.5mV
35	103.2V	117.0	130.0mV	101.3V	123.0	96.4mV
36	104.5V	114.4	127.8mV	101.8V	121.5	109.1mV
37	96.4V	127.2	102.7mV	102.9V	117.2	97.4mV
38	101.6V	117.8	125.4mV	97.6V	114.6	117.1mV
39	97.9V	126.0	126.2mV	98.2V	114.1	106.7mV
40	98.1V	125.6	119.7mV	103.3V	126.9	99.8mV
41	100.9V	124.8	129.3mV	97.5V	115.7	126.4mV
42	97.3V	113.8	107.0mV	104.2V	124.6	110.3mV
43	97.8V	114.8	103.2mV	98.1V	121.2	117.5mV
44	102.2V	115.3	103.9mV	96.7V	117.6	129.7mV
45	99.6V	116.1	120.0mV	97.1V	127.8	117.6mV
46	102.3V	124.1	124.0mV	104.7V	124.8	123.3mV
47	100.1V	127.5	124.1mV	103.6V	118.2	115.2mV
48	104.0V	119.7	121.6mV	102.1V	115.3	113.3mV
49	101.6V	125.2	109.1mV	99.8V	126.1	126.7mV
50	102.8V	126.1	119.8mV	102.5V	120.7	102.3mV
51	102.1V	124.1	127.6mV	102.4V	115.0	116.1mV
52	97.8V	117.4	106.7mV	99.7V	126.8	114.8mV
53	99.6V	126.3	106.3mV	99.4V	114.2	104.9mV
54	102.5V	116.4	113.4mV	99.6V	118.7	105.2mV
55	103.3V	118.4	123.7mV	100.1V	125.7	114.4mV
56	100.6V	126.7	122.5mV	96.6V	118.3	128.2mV
57	97.2V	122.7	103.6mV	101.1V	119.0	114.0mV
58	104.1V	127.3	105.0mV	100.0V	119.9	99.6mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	98.2V	115.7	125.4mV	103.9V	121.1	102.8mV
60	98.4V	115.3	109.9mV	99.5V	120.1	117.1mV
61	100.0V	125.5	123.0mV	98.6V	121.2	119.1mV
62	101.1V	127.7	107.2mV	97.2V	117.3	111.2mV
63	103.0V	126.5	108.8mV	97.7V	126.2	123.7mV
64	102.5V	118.6	98.0mV	98.2V	127.6	116.7mV
65	103.3V	116.8	127.3mV	104.2V	122.6	101.6mV
66	102.2V	127.7	121.6mV	96.6V	124.4	103.1mV
67	103.8V	121.8	116.8mV	96.9V	120.9	105.2mV
68	101.1V	125.4	124.0mV	98.6V	127.3	103.0mV
69	96.9V	126.3	131.6mV	101.3V	122.9	99.6mV
70	103.5V	123.6	98.1mV	99.3V	122.7	119.4mV
71	102.7V	116.5	117.9mV	102.0V	113.6	114.6mV
72	100.2V	113.6	126.4mV	103.1V	116.0	100.3mV
73	99.9V	125.7	113.3mV	99.3V	123.9	110.9mV
74	103.8V	127.5	102.6mV	100.5V	118.7	104.4mV
75	96.4V	119.4	113.4mV	100.6V	115.9	118.7mV
76	96.9V	115.0	128.9mV	96.0V	118.5	97.7mV
77	102.5V	120.0	131.6mV	102.1V	117.5	119.2mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	102.3V	119.2	104.7mV	101.8V	114.0	116.7mV
2	101.4V	116.4	118.9mV	96.6V	125.4	125.5mV
3	101.2V	121.1	97.6mV	103.2V	124.8	108.3mV
4	97.7V	114.4	125.0mV	102.3V	125.8	125.7mV
5	98.3V	127.9	106.1mV	97.0V	121.2	98.8mV
6	101.7V	121.1	129.0mV	104.7V	122.5	109.4mV
7	100.8V	117.4	127.9mV	103.3V	115.4	98.0mV
8	100.7V	126.8	104.7mV	104.5V	117.8	123.7mV
9	100.0V	114.9	100.6mV	100.8V	126.4	128.6mV
10	102.2V	124.4	107.7mV	103.5V	121.7	119.0mV
11	102.3V	115.1	96.7mV	101.4V	121.8	110.7mV
12	101.1V	123.5	130.4mV	98.6V	118.3	100.4mV
13	97.1V	121.5	114.3mV	96.4V	122.4	110.6mV
14	103.0V	122.9	121.3mV	97.9V	113.7	103.0mV
15	103.5V	122.7	121.2mV	99.6V	126.2	107.2mV
16	100.4V	114.1	119.3mV	97.7V	119.1	120.3mV
17	97.9V	114.4	115.9mV	99.1V	125.0	119.8mV
18	104.5V	126.2	127.6mV	101.3V	118.4	106.3mV
19	100.7V	119.9	102.2mV	100.8V	124.3	103.0mV
20	102.8V	126.4	121.3mV	98.2V	116.4	99.1mV
21	103.6V	127.2	113.7mV	100.9V	122.2	110.0mV
22	96.1V	119.9	131.5mV	103.6V	114.8	122.7mV
23	99.4V	126.5	121.5mV	96.4V	127.1	97.4mV
24	99.6V	113.8	98.2mV	100.8V	127.9	131.5mV
25	103.7V	114.5	104.6mV	98.1V	124.4	112.6mV
26	99.3V	118.4	101.3mV	96.2V	116.0	126.3mV
27	101.8V	116.6	101.5mV	104.0V	118.4	112.7mV
28	101.8V	116.4	115.3mV	104.6V	117.7	108.5mV
29	96.7V	117.4	121.4mV	99.8V	117.2	129.2mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	96.6V	125.9	100.0mV	97.9V	124.2	114.4mV
31	98.2V	122.0	124.9mV	103.9V	117.9	97.6mV
32	101.9V	122.7	108.6mV	103.8V	123.3	126.9mV
33	95.9V	122.9	120.7mV	99.4V	125.2	131.5mV
34	99.8V	126.9	101.0mV	98.6V	115.4	128.0mV
35	99.0V	123.8	109.1mV	103.5V	127.8	124.2mV
36	96.7V	127.5	120.5mV	103.7V	116.7	119.9mV
37	96.2V	121.6	111.4mV	99.5V	126.4	120.3mV
38	96.3V	121.9	100.9mV	101.9V	117.7	117.5mV
39	104.4V	118.7	118.3mV	100.0V	120.0	105.3mV
40	103.5V	122.6	116.6mV	96.2V	124.7	128.2mV
41	96.9V	125.3	131.5mV	99.1V	118.8	129.7mV
42	101.3V	122.6	127.8mV	104.1V	117.0	103.1mV
43	97.8V	113.6	126.6mV	100.6V	114.3	97.5mV
44	97.4V	115.7	104.9mV	98.2V	116.8	124.5mV
45	104.7V	121.9	108.0mV	96.3V	124.9	115.0mV
46	97.9V	124.5	103.0mV	103.3V	120.9	123.7mV
47	104.6V	116.0	130.3mV	96.8V	121.6	129.9mV
48	104.3V	123.4	106.7mV	101.6V	119.9	129.8mV
49	99.6V	125.5	114.6mV	101.2V	120.4	124.2mV
50	99.7V	115.8	129.5mV	99.0V	115.3	127.3mV
51	103.7V	127.9	116.1mV	97.9V	115.4	108.2mV
52	99.0V	121.3	106.8mV	102.2V	117.0	107.4mV
53	104.5V	124.0	102.9mV	102.9V	127.5	102.4mV
54	104.6V	127.9	107.5mV	99.2V	114.7	102.2mV
55	97.7V	114.0	96.7mV	103.6V	127.2	110.7mV
56	98.7V	116.7	112.9mV	100.9V	116.8	126.8mV
57	97.0V	126.8	112.5mV	100.8V	119.8	112.0mV
58	96.5V	119.7	122.5mV	104.6V	114.8	109.2mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.0V	124.5	103.1mV	100.6V	118.3	129.6mV
60	97.0V	119.9	110.4mV	100.4V	114.4	96.4mV
61	100.9V	123.8	129.7mV	101.1V	123.6	129.1mV
62	99.4V	124.8	107.2mV	101.7V	118.7	130.2mV
63	97.4V	118.4	115.4mV	100.8V	119.4	99.5mV
64	101.6V	118.0	130.7mV	97.0V	127.8	96.2mV
65	104.5V	116.7	129.9mV	102.0V	120.5	119.8mV
66	98.5V	124.9	104.5mV	102.7V	128.0	122.5mV
67	98.8V	121.6	131.1mV	100.0V	125.0	100.3mV
68	97.4V	125.4	109.2mV	97.2V	125.1	121.5mV
69	101.7V	126.1	126.5mV	99.3V	118.9	120.8mV
70	96.0V	127.9	100.6mV	96.5V	120.4	129.4mV
71	104.3V	117.8	116.6mV	102.5V	122.5	109.7mV
72	102.7V	125.1	122.1mV	99.0V	118.0	124.7mV
73	102.2V	119.6	103.8mV	100.7V	119.4	123.2mV
74	103.2V	124.6	130.7mV	96.4V	119.4	96.5mV
75	100.7V	124.5	124.0mV	101.1V	122.7	115.1mV
76	102.0V	120.4	118.5mV	97.7V	114.4	131.3mV
77	103.5V	114.4	123.6mV	103.0V	119.9	100.5mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	101.8V	121.1	131.2mV	101.2V	113.8	97.0mV
2	103.4V	117.1	111.5mV	104.4V	123.8	118.0mV
3	100.6V	117.9	121.2mV	96.3V	119.2	98.1mV
4	101.6V	113.7	105.1mV	103.0V	123.1	130.1mV
5	95.9V	114.0	130.2mV	99.3V	121.2	100.9mV
6	98.6V	120.8	126.8mV	104.0V	120.5	105.0mV
7	98.2V	115.8	104.7mV	102.7V	122.3	119.8mV
8	103.4V	126.5	108.5mV	103.4V	122.2	125.5mV
9	98.3V	118.5	121.4mV	102.0V	126.5	97.9mV
10	102.4V	117.7	126.3mV	100.7V	117.1	128.7mV
11	99.7V	122.2	120.0mV	96.3V	114.2	105.0mV
12	97.7V	115.4	131.8mV	99.2V	125.9	101.3mV
13	101.6V	119.6	115.7mV	97.0V	120.6	128.0mV
14	103.8V	126.8	104.2mV	99.4V	126.0	112.3mV
15	103.9V	122.1	113.9mV	98.2V	127.2	124.3mV
16	101.7V	116.1	131.1mV	98.1V	117.2	107.7mV
17	98.1V	122.6	120.0mV	103.9V	114.2	108.5mV
18	103.0V	120.5	98.2mV	104.6V	127.7	120.8mV
19	97.7V	121.9	109.8mV	98.8V	120.5	120.0mV
20	98.7V	115.6	121.2mV	101.6V	121.5	117.0mV
21	96.8V	122.4	96.1mV	98.7V	114.5	120.2mV
22	100.8V	123.9	124.3mV	96.1V	118.2	116.1mV
23	98.2V	115.0	103.1mV	102.0V	118.4	124.5mV
24	101.9V	115.4	118.6mV	99.4V	123.6	100.2mV
25	96.0V	116.5	110.6mV	101.2V	125.2	99.2mV
26	103.1V	113.8	115.6mV	100.3V	114.0	106.3mV
27	97.4V	121.6	109.1mV	97.5V	123.0	110.0mV
28	99.8V	121.0	96.1mV	97.8V	116.3	125.7mV
29	99.5V	116.2	101.0mV	101.0V	119.9	124.2mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	103.3V	127.8	119.6mV	102.2V	120.9	119.5mV
31	101.8V	124.2	110.8mV	100.1V	114.2	106.1mV
32	100.8V	114.1	103.8mV	101.4V	124.0	109.7mV
33	103.8V	125.8	114.7mV	100.5V	117.4	130.0mV
34	102.2V	119.9	104.3mV	98.3V	113.8	104.7mV
35	96.0V	114.5	119.0mV	97.8V	123.7	108.2mV
36	96.2V	114.7	111.0mV	97.5V	126.0	130.8mV
37	101.8V	118.5	114.1mV	99.2V	114.4	97.9mV
38	100.8V	127.5	118.8mV	97.6V	114.7	127.6mV
39	96.8V	118.2	116.9mV	103.9V	115.4	111.0mV
40	96.0V	122.3	105.5mV	101.6V	117.8	108.7mV
41	97.5V	117.6	112.2mV	102.1V	118.2	122.2mV
42	98.8V	124.4	103.3mV	99.8V	126.4	122.5mV
43	99.0V	118.6	117.4mV	96.4V	120.5	102.6mV
44	99.8V	122.9	104.3mV	99.9V	125.6	110.8mV
45	96.7V	120.3	113.0mV	97.9V	124.8	123.8mV
46	100.2V	124.7	118.7mV	97.3V	113.6	116.8mV
47	96.7V	115.3	96.1mV	103.3V	118.8	98.7mV
48	99.4V	114.3	126.7mV	103.3V	122.5	118.0mV
49	99.5V	116.3	112.1mV	99.4V	117.7	112.8mV
50	102.8V	121.4	110.7mV	101.0V	121.2	125.7mV
51	101.7V	116.9	107.6mV	99.4V	115.3	129.4mV
52	103.1V	125.3	119.8mV	98.2V	115.8	103.5mV
53	96.5V	124.8	113.3mV	97.3V	122.0	104.9mV
54	101.5V	123.5	129.8mV	96.1V	116.3	127.7mV
55	99.5V	125.2	110.1mV	96.2V	126.4	114.5mV
56	101.3V	118.3	108.1mV	104.3V	120.2	128.7mV
57	99.1V	117.7	97.2mV	96.5V	122.6	126.4mV
58	103.0V	115.0	101.1mV	101.3V	124.6	106.5mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	98.3V	125.7	121.9mV	101.0V	127.2	104.4mV
60	98.4V	124.4	106.0mV	101.9V	121.7	116.9mV
61	97.5V	114.7	102.4mV	98.3V	115.5	111.7mV
62	101.9V	123.2	115.4mV	102.7V	122.2	103.4mV
63	103.7V	118.1	114.5mV	99.3V	122.8	97.5mV
64	102.8V	126.0	98.7mV	102.6V	114.1	109.0mV
65	99.2V	125.5	129.9mV	101.4V	120.4	130.1mV
66	101.6V	127.6	105.0mV	99.9V	119.9	99.6mV
67	104.5V	114.5	98.7mV	98.9V	114.1	129.2mV
68	102.3V	115.9	110.8mV	103.0V	125.9	120.0mV
69	99.6V	122.6	116.5mV	98.4V	120.9	129.8mV
70	99.4V	122.0	101.0mV	101.2V	116.3	114.0mV
71	104.0V	117.0	106.1mV	104.4V	119.2	99.0mV
72	99.2V	119.1	126.5mV	96.1V	121.8	109.8mV
73	97.1V	125.6	128.6mV	98.4V	118.8	131.0mV
74	98.2V	127.5	105.1mV	100.6V	124.1	111.0mV
75	102.5V	114.1	124.9mV	99.6V	119.8	117.6mV
76	100.3V	120.8	113.7mV	99.8V	117.1	124.1mV
77	100.7V	118.3	126.8mV	101.0V	118.5	105.9mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T151008-103
Part No : BCP56
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > 80V@IC=1mA, IB=0 ； 100 < hFE < 250@VCE=2V, IC=150mA
VCE(sat) < 500mV@IC=500mA, IB=50mA
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	102.4V	115.1	109.9mV	101.1V	125.6	109.0mV
2	104.3V	117.3	106.7mV	99.8V	124.5	124.3mV
3	102.7V	126.8	104.8mV	97.0V	116.6	126.3mV
4	96.5V	116.3	122.7mV	102.6V	118.1	98.1mV
5	103.7V	124.8	98.1mV	103.4V	117.9	128.4mV
6	102.6V	123.5	110.8mV	99.4V	116.9	103.3mV
7	98.2V	121.0	102.7mV	100.7V	115.0	107.2mV
8	96.0V	118.2	98.0mV	101.2V	115.8	115.0mV
9	97.8V	127.6	107.6mV	98.5V	123.0	113.3mV
10	97.4V	113.8	98.8mV	96.7V	117.3	128.9mV

Made By: King Huang

Approval: Peter Yang