www.SeCosGmbH.com

Headquarter Address:
8F.No.33, Lane 155, Sec.3, Bei-Shen Rd.,
Shen Keng Dist, New Taipei City, Taiwan
TEL: +886-2-26620988
FAX: +886-2-26620488

Product/Process Change Notification

PCN#	Effective Date	Issue Date
2015-10-21C-06	2015/11/1	2015/10/21

PCN Classification	Product Category
Major	Transistor

Subject

Change the assembly house.

Affected Product(s)

PZT2907A

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)

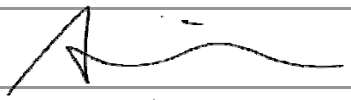
Assembly house.

Impact(s)

None

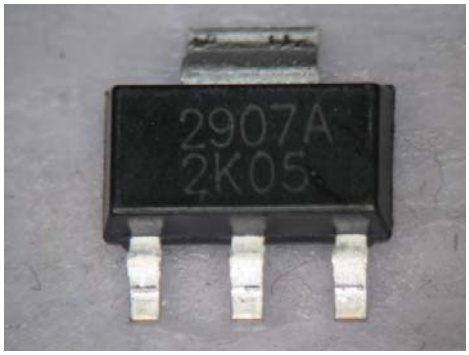
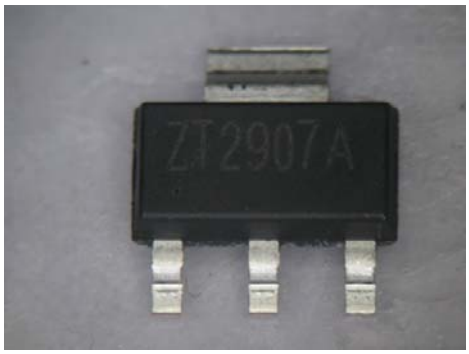
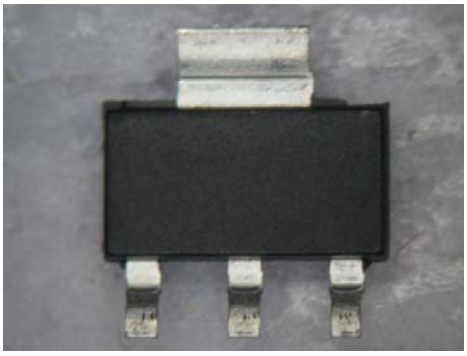
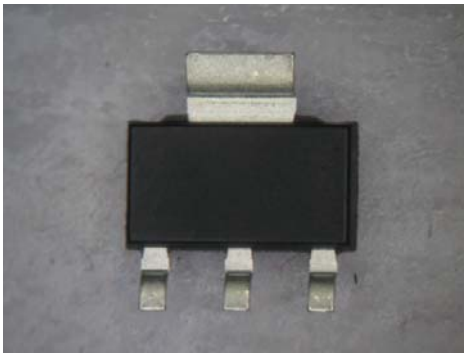
Attachment(s)

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		

www.SeCosGmbH.com

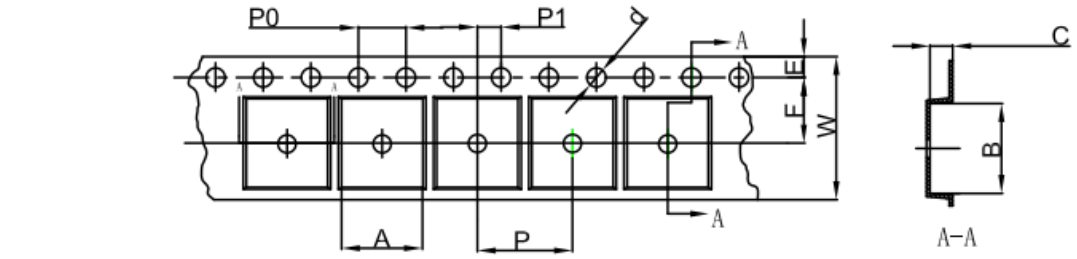
Headquarter Address:
8F.No.33, Lane 155, Sec.3, Bei-Shen Rd.,
Shen Keng Dist, New Taipei City, Taiwan
TEL: +886-2-26620988
FAX: +886-2-26620488

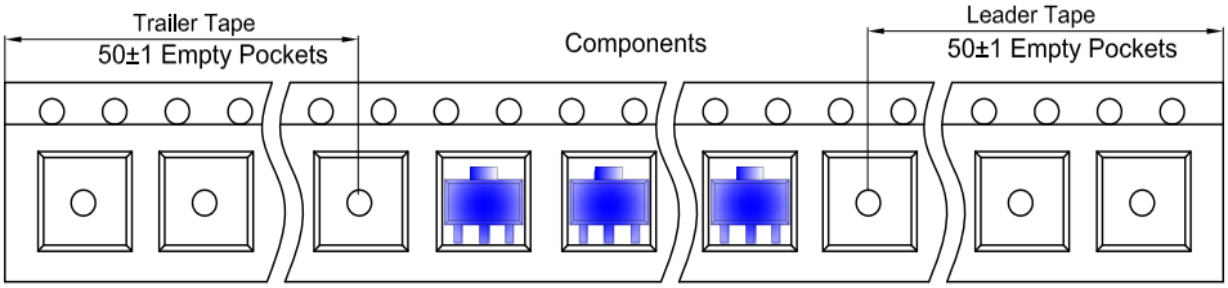
Exterior comparison Chart	
Original	New
	
Top View	Top View
	
Back View	Back View

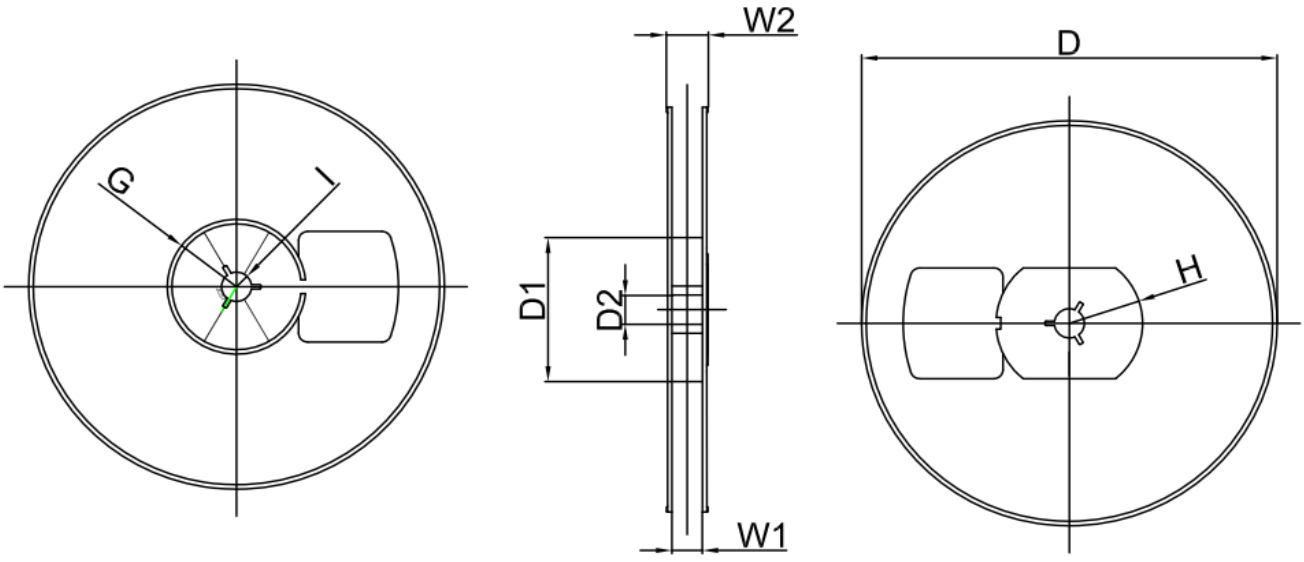
Elektronische Bauelemente

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 -10-112

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	PZT2907A	150 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	PZT2907A	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	PZT2907A	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	PZT2907A	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	PZT2907A	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	PZT2907A	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	PZT2907A	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 : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.41V	204.2	-472.3mV
2	-89.12V	190.7	-458.6mV
3	-89.46V	194.8	-464.8mV
4	-88.30V	192.0	-474.5mV
5	-88.24V	204.0	-465.0mV
6	-90.12V	199.8	-449.8mV
7	-87.68V	203.8	-477.1mV
8	-90.10V	202.7	-461.2mV
9	-88.25V	192.6	-453.3mV
10	-88.19V	205.6	-451.0mV
11	-87.63V	202.9	-464.0mV
12	-88.11V	198.1	-444.6mV
13	-89.14V	203.1	-470.1mV
14	-89.68V	202.9	-475.2mV
15	-88.87V	196.5	-487.3mV
16	-88.52V	204.6	-451.6mV
17	-89.21V	195.2	-449.2mV
18	-89.42V	204.7	-460.9mV
19	-89.21V	198.2	-473.5mV
20	-87.54V	193.8	-445.3mV
21	-89.10V	197.9	-462.5mV
22	-89.16V	195.8	-449.1mV
23	-89.25V	201.6	-452.2mV
24	-89.89V	189.0	-459.7mV
25	-90.11V	199.2	-447.4mV
26	-90.16V	200.4	-482.4mV
27	-89.47V	195.9	-452.8mV
28	-88.68V	196.3	-472.0mV
29	-88.76V	203.5	-457.8mV
30	-88.24V	194.7	-481.4mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-89.67V	189.9	-453.3mV
32	-88.87V	195.2	-473.5mV
33	-87.91V	202.8	-453.9mV
34	-89.04V	192.6	-483.2mV
35	-87.85V	198.7	-445.2mV
36	-89.62V	197.2	-460.4mV
37	-89.30V	196.8	-451.4mV
38	-90.03V	198.2	-479.7mV
39	-87.83V	201.6	-453.3mV
40	-88.94V	194.5	-465.4mV
41	-87.66V	202.1	-488.3mV
42	-87.65V	189.2	-455.7mV
43	-90.17V	191.9	-444.8mV
44	-89.47V	196.0	-486.8mV
45	-89.21V	189.3	-469.7mV
46	-88.17V	199.4	-466.5mV
47	-89.08V	189.6	-452.8mV
48	-89.40V	199.7	-470.0mV
49	-90.17V	203.9	-454.1mV
50	-90.07V	190.3	-446.1mV
51	-90.18V	193.8	-443.8mV
52	-89.29V	197.4	-455.6mV
53	-89.00V	196.2	-468.6mV
54	-89.00V	190.4	-452.6mV
55	-89.21V	199.9	-482.0mV
56	-88.00V	203.8	-478.6mV
57	-89.34V	203.4	-475.3mV
58	-89.01V	198.2	-473.8mV
59	-90.02V	199.5	-465.9mV
60	-90.19V	202.1	-456.1mV

SeCoS Corporation

Electrical Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.24V	195.5	-472.2mV
62	-89.10V	188.8	-464.7mV
63	-88.86V	198.8	-465.1mV
64	-89.99V	196.0	-473.8mV
65	-88.68V	199.3	-477.1mV
66	-88.11V	188.8	-468.8mV
67	-89.30V	190.4	-481.6mV
68	-88.08V	196.0	-481.2mV
69	-88.57V	190.9	-488.0mV
70	-88.92V	204.6	-461.0mV
71	-88.21V	199.8	-456.3mV
72	-88.26V	192.9	-461.8mV
73	-89.89V	196.6	-466.6mV
74	-87.47V	200.5	-483.6mV
75	-88.47V	195.4	-466.3mV
76	-90.01V	196.4	-472.4mV
77	-89.93V	188.8	-462.1mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-90.07V	200.9	-462.8mV	-89.45V	189.0	-487.3mV
2	-89.60V	194.6	-481.6mV	-87.59V	189.1	-460.5mV
3	-88.66V	203.8	-444.8mV	-89.41V	205.3	-484.4mV
4	-88.15V	200.7	-469.1mV	-88.73V	201.6	-486.1mV
5	-89.65V	200.0	-473.7mV	-89.84V	193.5	-460.0mV
6	-87.98V	197.0	-476.1mV	-88.72V	203.5	-479.3mV
7	-87.67V	196.8	-456.1mV	-88.57V	200.2	-470.1mV
8	-87.47V	203.3	-449.5mV	-88.35V	189.8	-463.1mV
9	-88.13V	190.0	-481.1mV	-89.23V	205.1	-463.7mV
10	-89.68V	198.9	-483.5mV	-87.67V	190.1	-463.5mV
11	-89.24V	199.9	-472.6mV	-89.65V	195.4	-457.8mV
12	-90.20V	190.9	-455.7mV	-89.50V	194.0	-447.6mV
13	-88.47V	192.2	-468.4mV	-87.90V	203.0	-453.5mV
14	-88.56V	194.7	-470.6mV	-88.90V	200.8	-476.0mV
15	-88.52V	197.6	-464.4mV	-90.21V	196.1	-487.7mV
16	-88.53V	203.9	-483.4mV	-89.36V	195.0	-450.7mV
17	-87.61V	198.1	-474.9mV	-89.48V	202.5	-461.8mV
18	-89.82V	194.3	-453.2mV	-90.20V	189.8	-486.4mV
19	-89.18V	197.7	-466.7mV	-89.50V	196.8	-483.9mV
20	-89.77V	198.8	-475.8mV	-89.95V	196.4	-455.6mV
21	-88.10V	200.9	-471.5mV	-88.89V	190.1	-456.2mV
22	-89.81V	205.0	-475.0mV	-87.81V	200.3	-460.5mV
23	-88.16V	190.4	-472.2mV	-88.11V	191.4	-467.6mV
24	-87.68V	205.3	-478.3mV	-89.04V	188.7	-463.8mV
25	-89.39V	203.0	-447.7mV	-88.44V	200.6	-458.9mV
26	-87.88V	190.9	-468.8mV	-87.70V	190.1	-443.8mV
27	-90.03V	193.7	-476.1mV	-87.87V	197.5	-461.2mV
28	-89.22V	188.8	-468.7mV	-87.86V	202.0	-470.3mV
29	-89.27V	189.4	-458.8mV	-87.76V	192.7	-452.1mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-89.37V	190.8	-459.6mV	-87.66V	198.0	-487.5mV
31	-88.32V	197.8	-481.5mV	-89.34V	192.4	-454.4mV
32	-90.18V	192.7	-469.3mV	-88.09V	201.4	-464.5mV
33	-90.12V	202.1	-477.4mV	-87.78V	198.5	-485.8mV
34	-89.25V	193.5	-486.6mV	-89.67V	203.8	-484.6mV
35	-88.37V	193.9	-474.0mV	-88.00V	203.7	-470.0mV
36	-88.34V	202.7	-486.4mV	-89.15V	190.0	-448.9mV
37	-89.05V	198.1	-443.6mV	-88.35V	203.1	-457.1mV
38	-87.91V	203.6	-469.4mV	-88.27V	195.0	-460.9mV
39	-87.66V	202.9	-445.0mV	-89.80V	192.5	-472.9mV
40	-87.80V	194.2	-454.0mV	-87.75V	204.5	-487.3mV
41	-88.62V	198.1	-487.1mV	-88.57V	194.6	-459.8mV
42	-88.08V	195.2	-474.4mV	-88.76V	188.8	-446.7mV
43	-87.51V	200.7	-446.7mV	-89.46V	190.8	-485.2mV
44	-88.39V	189.4	-452.9mV	-90.13V	192.7	-446.0mV
45	-88.96V	191.4	-479.0mV	-89.00V	204.1	-485.4mV
46	-88.41V	196.5	-474.4mV	-90.12V	194.2	-484.6mV
47	-88.98V	205.4	-465.6mV	-89.48V	200.1	-471.2mV
48	-87.81V	191.6	-444.2mV	-88.12V	190.4	-462.9mV
49	-88.35V	196.5	-485.3mV	-87.74V	196.0	-458.5mV
50	-88.12V	202.4	-477.7mV	-89.29V	192.6	-451.0mV
51	-87.84V	200.7	-480.4mV	-89.46V	205.2	-480.0mV
52	-88.09V	196.2	-476.3mV	-88.26V	193.4	-485.5mV
53	-87.82V	192.9	-471.0mV	-88.67V	201.2	-465.1mV
54	-88.30V	193.1	-472.6mV	-88.50V	203.7	-478.8mV
55	-90.01V	193.5	-469.2mV	-88.99V	199.7	-465.1mV
56	-88.44V	198.9	-478.7mV	-89.17V	199.0	-474.0mV
57	-88.20V	194.3	-486.5mV	-87.92V	195.2	-467.9mV
58	-87.96V	195.7	-464.5mV	-89.82V	189.0	-460.7mV

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.17V	200.6	-448.9mV	-90.20V	191.1	-446.4mV
60	-89.58V	199.3	-469.3mV	-89.36V	195.3	-485.6mV
61	-88.31V	198.4	-459.3mV	-90.00V	204.3	-446.8mV
62	-88.09V	192.9	-481.4mV	-89.85V	191.3	-460.8mV
63	-88.39V	205.1	-456.6mV	-87.86V	198.8	-458.8mV
64	-88.23V	197.3	-446.4mV	-89.33V	193.6	-446.2mV
65	-87.81V	188.8	-461.2mV	-89.97V	200.5	-457.4mV
66	-89.84V	189.3	-447.9mV	-90.15V	191.8	-453.0mV
67	-89.41V	192.2	-469.1mV	-88.55V	201.0	-465.9mV
68	-87.89V	203.7	-488.3mV	-88.53V	197.6	-457.0mV
69	-90.06V	205.4	-487.9mV	-90.13V	196.6	-468.4mV
70	-88.02V	198.3	-461.2mV	-88.42V	190.4	-475.9mV
71	-89.20V	193.3	-460.3mV	-89.55V	205.6	-487.9mV
72	-87.51V	205.1	-476.3mV	-89.97V	196.7	-462.3mV
73	-89.25V	189.3	-450.2mV	-87.83V	190.7	-476.5mV
74	-89.97V	191.6	-479.0mV	-88.79V	200.2	-455.6mV
75	-88.81V	203.5	-445.6mV	-88.94V	189.1	-487.8mV
76	-89.42V	193.1	-483.9mV	-89.43V	189.0	-478.8mV
77	-89.67V	199.3	-475.9mV	-88.84V	202.8	-472.3mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.23V	205.2	-471.0mV	-87.50V	189.3	-478.1mV
2	-90.11V	205.3	-487.2mV	-88.24V	194.6	-454.3mV
3	-87.56V	202.5	-463.9mV	-89.81V	191.3	-451.8mV
4	-88.07V	188.8	-452.6mV	-90.13V	198.0	-469.3mV
5	-88.57V	190.4	-472.8mV	-88.88V	197.7	-485.7mV
6	-88.38V	189.4	-451.2mV	-90.10V	191.5	-453.8mV
7	-88.37V	195.1	-471.5mV	-88.32V	194.5	-454.2mV
8	-89.54V	200.7	-458.6mV	-89.62V	196.8	-445.1mV
9	-87.57V	194.3	-473.6mV	-89.57V	193.0	-472.3mV
10	-88.82V	194.1	-467.2mV	-88.39V	191.9	-483.5mV
11	-89.65V	201.7	-452.4mV	-88.10V	195.2	-470.6mV
12	-89.30V	203.7	-460.3mV	-88.52V	191.3	-478.8mV
13	-88.31V	198.5	-468.8mV	-88.99V	200.9	-453.8mV
14	-89.09V	195.1	-485.6mV	-88.82V	203.9	-473.7mV
15	-89.40V	201.0	-481.7mV	-89.01V	203.2	-452.6mV
16	-88.04V	198.5	-485.0mV	-89.00V	194.8	-480.5mV
17	-88.91V	193.3	-487.3mV	-88.49V	189.7	-476.8mV
18	-89.32V	201.5	-488.5mV	-87.50V	195.1	-486.2mV
19	-89.99V	201.8	-481.9mV	-87.95V	189.4	-452.6mV
20	-90.05V	197.7	-454.8mV	-88.98V	192.9	-471.7mV
21	-89.33V	199.0	-481.9mV	-87.81V	197.3	-485.6mV
22	-87.50V	199.5	-481.9mV	-88.17V	202.0	-448.2mV
23	-89.88V	193.9	-477.9mV	-89.38V	195.2	-473.3mV
24	-87.99V	194.0	-454.3mV	-88.34V	194.0	-473.9mV
25	-89.52V	196.0	-470.9mV	-89.45V	205.1	-452.1mV
26	-89.35V	195.3	-459.3mV	-88.89V	191.5	-473.5mV
27	-89.60V	203.4	-454.0mV	-89.77V	197.4	-469.9mV
28	-89.91V	193.1	-480.8mV	-89.35V	200.2	-460.9mV
29	-88.90V	195.6	-454.1mV	-87.91V	203.7	-471.7mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.64V	200.3	-444.7mV	-88.45V	204.9	-481.0mV
31	-89.15V	197.6	-457.4mV	-90.03V	195.7	-446.6mV
32	-89.89V	193.9	-458.7mV	-89.81V	192.8	-475.6mV
33	-89.66V	197.2	-451.0mV	-88.72V	192.8	-454.7mV
34	-88.74V	201.7	-443.1mV	-87.83V	195.3	-482.2mV
35	-89.74V	203.8	-482.7mV	-88.98V	205.4	-458.7mV
36	-88.00V	195.2	-487.0mV	-89.22V	189.3	-476.9mV
37	-88.43V	196.2	-469.4mV	-90.05V	194.9	-454.4mV
38	-87.57V	200.0	-475.5mV	-88.84V	190.9	-484.5mV
39	-90.00V	192.7	-448.1mV	-88.81V	189.1	-486.3mV
40	-89.47V	204.7	-473.8mV	-89.30V	198.8	-462.3mV
41	-88.36V	204.1	-444.9mV	-88.06V	201.3	-458.1mV
42	-87.75V	204.1	-485.5mV	-90.20V	193.6	-482.2mV
43	-89.06V	205.6	-479.9mV	-88.81V	195.2	-450.1mV
44	-89.36V	197.8	-457.6mV	-87.91V	191.5	-455.6mV
45	-88.75V	191.3	-452.5mV	-88.68V	200.1	-445.5mV
46	-88.31V	192.8	-453.6mV	-87.55V	191.0	-456.7mV
47	-87.68V	196.0	-479.5mV	-90.15V	191.7	-444.2mV
48	-88.35V	203.9	-454.4mV	-87.59V	203.2	-447.8mV
49	-88.94V	196.7	-452.4mV	-89.28V	197.5	-444.3mV
50	-89.12V	197.5	-481.2mV	-88.45V	191.1	-459.8mV
51	-88.00V	204.0	-462.2mV	-89.32V	192.6	-468.1mV
52	-88.36V	204.7	-486.4mV	-87.42V	196.4	-469.8mV
53	-88.18V	205.1	-477.9mV	-89.50V	197.8	-483.4mV
54	-88.04V	192.2	-456.3mV	-90.13V	192.1	-470.3mV
55	-88.78V	190.3	-463.7mV	-87.63V	191.3	-453.5mV
56	-88.69V	196.3	-478.8mV	-89.46V	199.9	-444.8mV
57	-89.10V	196.0	-462.1mV	-88.03V	204.5	-472.0mV
58	-87.69V	190.4	-445.3mV	-89.71V	197.2	-452.6mV

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.59V	189.4	-462.9mV	-89.25V	201.7	-468.7mV
60	-88.78V	190.5	-446.6mV	-89.03V	197.3	-481.4mV
61	-88.54V	192.7	-473.6mV	-89.06V	196.3	-474.6mV
62	-90.04V	194.0	-485.2mV	-89.79V	192.5	-479.2mV
63	-88.83V	204.3	-458.5mV	-88.87V	195.8	-481.5mV
64	-87.76V	199.7	-485.6mV	-88.64V	204.7	-488.1mV
65	-90.06V	201.1	-449.4mV	-90.13V	192.7	-470.3mV
66	-88.31V	200.3	-472.4mV	-89.36V	197.6	-463.4mV
67	-89.82V	191.5	-444.1mV	-87.49V	190.5	-448.8mV
68	-89.12V	204.0	-449.0mV	-89.16V	194.4	-481.3mV
69	-88.83V	191.5	-473.6mV	-89.53V	204.5	-457.7mV
70	-89.60V	195.1	-445.8mV	-88.24V	195.7	-454.7mV
71	-88.70V	190.5	-460.9mV	-88.15V	189.3	-472.9mV
72	-88.09V	192.9	-451.0mV	-88.66V	203.3	-470.9mV
73	-88.00V	198.5	-479.6mV	-88.15V	200.2	-460.5mV
74	-88.28V	201.7	-475.0mV	-90.04V	198.0	-481.3mV
75	-89.95V	191.7	-455.9mV	-88.04V	201.2	-477.2mV
76	-90.14V	189.5	-457.5mV	-89.27V	199.5	-469.3mV
77	-89.74V	191.6	-484.8mV	-89.89V	200.1	-473.0mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.40V	192.5	-462.5mV	-87.67V	190.4	-485.8mV
2	-88.91V	192.5	-463.9mV	-88.26V	199.4	-446.1mV
3	-87.71V	199.2	-478.7mV	-88.37V	199.2	-452.0mV
4	-88.32V	190.4	-488.5mV	-89.89V	204.7	-457.6mV
5	-88.82V	199.8	-462.5mV	-90.02V	202.3	-486.7mV
6	-90.19V	195.7	-461.2mV	-87.85V	197.6	-479.4mV
7	-90.14V	196.5	-483.4mV	-88.30V	200.6	-456.6mV
8	-89.88V	191.5	-448.8mV	-89.80V	189.4	-485.5mV
9	-88.93V	198.3	-467.2mV	-88.98V	191.6	-457.8mV
10	-89.56V	192.7	-484.2mV	-89.92V	198.9	-462.0mV
11	-89.87V	195.2	-464.4mV	-89.29V	201.3	-471.9mV
12	-89.46V	204.0	-465.1mV	-88.34V	193.5	-481.9mV
13	-89.64V	189.5	-461.1mV	-89.42V	189.8	-482.3mV
14	-89.42V	204.4	-454.3mV	-88.70V	196.7	-448.8mV
15	-87.62V	190.6	-486.4mV	-89.04V	201.0	-472.6mV
16	-89.07V	196.8	-445.2mV	-89.78V	193.3	-459.1mV
17	-88.48V	202.4	-459.1mV	-87.78V	201.9	-453.5mV
18	-89.66V	191.5	-452.2mV	-89.35V	191.4	-482.8mV
19	-87.42V	191.5	-460.4mV	-87.92V	201.0	-473.7mV
20	-89.23V	196.9	-450.8mV	-89.68V	198.1	-480.7mV
21	-90.09V	191.2	-453.7mV	-88.65V	195.8	-483.5mV
22	-89.91V	198.8	-460.0mV	-88.72V	189.3	-485.0mV
23	-88.49V	190.5	-471.9mV	-88.51V	200.7	-478.3mV
24	-90.08V	202.9	-468.5mV	-88.46V	202.5	-452.3mV
25	-89.89V	195.9	-443.6mV	-90.02V	191.6	-454.3mV
26	-89.14V	201.9	-452.9mV	-88.47V	202.7	-476.1mV
27	-88.76V	204.2	-462.3mV	-87.82V	192.0	-450.0mV
28	-89.55V	200.5	-462.7mV	-87.86V	192.1	-486.0mV
29	-87.93V	192.8	-455.4mV	-87.68V	201.6	-445.6mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-90.00V	197.9	-447.9mV	-87.98V	195.3	-458.7mV
31	-87.44V	199.6	-446.6mV	-90.06V	202.4	-476.0mV
32	-88.80V	200.2	-454.2mV	-88.16V	203.2	-457.8mV
33	-89.00V	202.2	-468.8mV	-88.44V	202.3	-464.8mV
34	-89.26V	202.2	-470.1mV	-88.71V	190.1	-484.5mV
35	-90.13V	188.8	-483.3mV	-89.16V	197.3	-472.1mV
36	-89.89V	200.5	-446.0mV	-89.13V	196.0	-461.5mV
37	-89.75V	205.3	-473.2mV	-89.83V	190.9	-455.1mV
38	-90.08V	195.6	-487.1mV	-90.03V	195.5	-472.7mV
39	-88.98V	190.6	-471.5mV	-87.49V	192.3	-462.8mV
40	-88.39V	197.9	-483.3mV	-90.19V	195.1	-485.1mV
41	-89.83V	199.4	-455.2mV	-89.17V	197.1	-488.1mV
42	-89.38V	202.8	-450.8mV	-87.40V	196.7	-478.9mV
43	-88.99V	201.7	-466.6mV	-89.06V	191.7	-482.2mV
44	-89.12V	192.4	-484.9mV	-89.68V	198.7	-455.6mV
45	-89.69V	205.4	-486.8mV	-88.18V	197.3	-454.6mV
46	-87.67V	200.6	-468.1mV	-89.91V	198.6	-471.2mV
47	-88.11V	205.0	-462.1mV	-88.23V	202.9	-471.7mV
48	-90.06V	189.9	-475.0mV	-88.49V	190.3	-452.3mV
49	-89.46V	191.1	-451.3mV	-89.79V	193.8	-484.9mV
50	-88.48V	204.8	-448.6mV	-88.97V	203.0	-465.0mV
51	-89.12V	198.3	-487.1mV	-88.50V	188.9	-475.7mV
52	-89.31V	198.6	-476.1mV	-88.67V	204.1	-454.7mV
53	-87.40V	193.4	-472.0mV	-88.95V	195.5	-474.3mV
54	-88.28V	191.3	-467.2mV	-89.31V	201.0	-483.1mV
55	-89.89V	194.6	-482.9mV	-88.04V	203.6	-486.1mV
56	-89.67V	198.4	-483.9mV	-88.61V	205.3	-459.3mV
57	-89.21V	192.9	-481.7mV	-88.65V	197.9	-483.2mV
58	-87.76V	193.4	-485.2mV	-88.62V	203.8	-486.8mV

SeCoS Corporation

Pressure Cooker Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-89.38V	202.1	-480.8mV	-88.76V	192.1	-446.1mV
60	-89.98V	190.0	-448.0mV	-87.54V	203.7	-485.5mV
61	-89.13V	194.0	-459.2mV	-88.83V	202.4	-446.9mV
62	-88.56V	200.6	-459.0mV	-88.41V	188.9	-460.9mV
63	-89.05V	198.7	-475.6mV	-87.82V	191.8	-446.6mV
64	-89.38V	200.6	-464.6mV	-89.76V	194.6	-484.1mV
65	-87.70V	197.5	-444.0mV	-87.87V	190.7	-464.6mV
66	-88.27V	194.9	-474.4mV	-88.30V	204.1	-446.3mV
67	-89.02V	192.5	-450.7mV	-89.46V	189.5	-457.5mV
68	-90.10V	190.7	-468.4mV	-88.95V	198.8	-445.0mV
69	-90.13V	197.5	-474.6mV	-89.49V	193.1	-473.7mV
70	-89.47V	202.8	-450.4mV	-89.06V	197.4	-476.4mV
71	-87.93V	200.6	-457.3mV	-89.71V	198.7	-477.8mV
72	-87.60V	198.0	-447.4mV	-88.20V	191.6	-450.3mV
73	-88.32V	194.7	-465.2mV	-88.76V	199.7	-470.6mV
74	-89.63V	191.1	-450.2mV	-89.74V	196.5	-486.8mV
75	-88.16V	191.4	-459.6mV	-87.76V	204.6	-454.6mV
76	-89.12V	199.0	-488.2mV	-89.72V	199.0	-462.6mV
77	-87.84V	195.6	-456.3mV	-88.79V	199.8	-473.6mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.41V	205.3	-444.2mV	-89.44V	200.9	-450.4mV
2	-87.44V	193.8	-464.6mV	-90.16V	194.7	-477.3mV
3	-89.15V	195.1	-459.8mV	-89.35V	204.6	-476.9mV
4	-89.81V	198.5	-452.4mV	-88.95V	204.1	-472.0mV
5	-87.63V	196.8	-485.6mV	-89.17V	204.4	-455.4mV
6	-87.73V	200.3	-475.9mV	-90.17V	194.8	-464.4mV
7	-88.07V	204.5	-450.7mV	-89.58V	189.1	-479.0mV
8	-88.02V	201.9	-463.3mV	-90.00V	203.2	-461.4mV
9	-90.20V	190.8	-464.2mV	-88.36V	195.3	-463.7mV
10	-88.69V	189.7	-460.2mV	-89.86V	200.2	-443.9mV
11	-90.06V	204.3	-454.2mV	-89.71V	188.7	-462.6mV
12	-88.88V	201.1	-471.8mV	-88.70V	197.7	-459.2mV
13	-89.16V	193.4	-475.7mV	-90.02V	201.5	-482.6mV
14	-88.67V	198.1	-448.5mV	-89.34V	204.9	-463.0mV
15	-89.61V	204.0	-484.8mV	-88.69V	201.8	-458.2mV
16	-90.17V	197.8	-462.9mV	-87.54V	203.4	-443.8mV
17	-88.29V	196.0	-447.7mV	-90.05V	190.9	-470.7mV
18	-88.29V	204.5	-464.1mV	-89.28V	202.3	-458.4mV
19	-89.38V	205.6	-458.0mV	-88.27V	196.2	-467.2mV
20	-89.36V	198.0	-466.8mV	-89.11V	194.5	-447.7mV
21	-89.48V	191.6	-448.6mV	-87.96V	189.4	-479.7mV
22	-90.17V	205.1	-476.6mV	-90.17V	194.8	-460.7mV
23	-88.00V	203.9	-462.9mV	-88.99V	205.1	-447.3mV
24	-89.01V	189.1	-476.7mV	-89.19V	204.3	-451.2mV
25	-89.50V	199.5	-477.1mV	-90.12V	201.1	-451.3mV
26	-88.13V	190.5	-446.6mV	-88.41V	201.0	-451.5mV
27	-88.12V	196.8	-458.7mV	-88.45V	192.8	-453.5mV
28	-88.52V	200.5	-444.9mV	-88.48V	197.4	-473.6mV
29	-89.27V	199.2	-451.5mV	-89.49V	201.2	-457.0mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-89.00V	202.9	-445.6mV	-88.12V	200.6	-478.2mV
31	-88.01V	198.3	-470.4mV	-87.91V	204.5	-484.9mV
32	-88.81V	195.5	-482.9mV	-87.84V	202.8	-470.9mV
33	-89.43V	202.6	-484.8mV	-89.82V	190.4	-467.3mV
34	-87.52V	193.0	-455.7mV	-87.97V	199.0	-454.9mV
35	-87.77V	196.9	-456.8mV	-89.07V	204.9	-460.9mV
36	-88.86V	205.1	-478.8mV	-90.09V	194.4	-488.1mV
37	-88.08V	199.3	-460.6mV	-89.88V	196.2	-467.5mV
38	-90.02V	192.5	-481.1mV	-89.67V	202.8	-487.7mV
39	-90.00V	189.9	-486.2mV	-88.95V	191.9	-477.4mV
40	-87.75V	192.8	-473.0mV	-88.31V	199.3	-473.5mV
41	-89.80V	194.7	-467.6mV	-88.60V	193.0	-457.2mV
42	-88.51V	192.2	-470.5mV	-89.10V	202.3	-450.4mV
43	-87.82V	199.9	-482.6mV	-90.07V	202.4	-444.7mV
44	-87.83V	197.1	-476.2mV	-89.86V	191.6	-468.4mV
45	-89.33V	198.0	-470.0mV	-89.23V	198.6	-472.6mV
46	-88.72V	196.7	-444.0mV	-87.47V	202.6	-445.7mV
47	-87.62V	193.6	-453.5mV	-88.73V	191.8	-485.1mV
48	-89.69V	188.8	-475.8mV	-88.05V	199.9	-449.9mV
49	-87.97V	200.7	-471.1mV	-87.66V	201.9	-484.9mV
50	-88.28V	203.7	-487.4mV	-88.58V	189.4	-450.5mV
51	-88.48V	189.1	-480.3mV	-87.63V	205.6	-468.8mV
52	-88.12V	190.8	-468.7mV	-90.17V	196.8	-468.2mV
53	-87.71V	196.4	-445.6mV	-89.19V	199.5	-453.0mV
54	-88.59V	204.6	-464.4mV	-90.17V	201.1	-468.2mV
55	-87.51V	199.2	-451.7mV	-89.07V	192.1	-486.0mV
56	-89.74V	197.1	-487.8mV	-89.88V	193.7	-465.6mV
57	-89.69V	192.8	-447.5mV	-88.83V	195.6	-467.3mV
58	-88.28V	192.7	-486.5mV	-89.11V	205.6	-473.2mV

SeCoS Corporation

Temperature Cycle Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.13V	203.3	-464.7mV	-89.25V	200.9	-443.4mV
60	-89.51V	200.5	-483.7mV	-88.13V	204.3	-466.9mV
61	-88.70V	189.5	-487.5mV	-89.57V	203.8	-485.4mV
62	-89.83V	202.4	-457.1mV	-88.47V	197.6	-461.8mV
63	-88.57V	198.4	-470.0mV	-88.32V	194.8	-467.9mV
64	-87.40V	188.8	-472.3mV	-89.24V	201.2	-474.7mV
65	-88.18V	199.4	-460.3mV	-87.72V	199.5	-484.1mV
66	-88.72V	197.0	-480.1mV	-89.77V	189.2	-453.1mV
67	-87.87V	201.0	-453.0mV	-88.76V	203.9	-444.9mV
68	-89.13V	193.5	-448.7mV	-89.35V	195.8	-487.8mV
69	-89.57V	190.5	-462.2mV	-89.80V	194.2	-452.0mV
70	-89.91V	191.6	-452.6mV	-87.40V	204.8	-476.9mV
71	-89.66V	200.5	-451.4mV	-88.90V	202.7	-478.0mV
72	-89.56V	197.0	-445.4mV	-89.79V	194.9	-455.5mV
73	-87.39V	188.8	-453.8mV	-88.09V	191.9	-451.5mV
74	-88.11V	195.3	-446.3mV	-89.84V	203.7	-464.4mV
75	-88.03V	195.1	-482.3mV	-89.01V	205.0	-466.8mV
76	-89.92V	189.5	-468.7mV	-89.31V	192.3	-483.5mV
77	-87.64V	195.0	-454.9mV	-88.13V	194.2	-479.8mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.30V	197.7	-476.1mV	-87.65V	199.7	-452.3mV
2	-87.90V	191.0	-456.0mV	-89.00V	192.7	-458.2mV
3	-88.91V	197.2	-471.5mV	-87.70V	197.2	-466.5mV
4	-89.00V	199.3	-488.3mV	-89.31V	190.9	-453.7mV
5	-89.32V	193.8	-450.2mV	-88.49V	191.3	-458.3mV
6	-87.81V	189.4	-473.9mV	-89.10V	194.5	-467.1mV
7	-89.97V	192.1	-457.9mV	-87.43V	195.9	-455.8mV
8	-89.06V	195.1	-482.7mV	-88.08V	192.7	-474.8mV
9	-87.46V	204.1	-465.2mV	-89.89V	196.4	-460.3mV
10	-88.23V	191.0	-481.0mV	-90.07V	202.1	-444.6mV
11	-89.21V	201.3	-473.6mV	-89.24V	195.7	-446.4mV
12	-89.56V	202.4	-465.4mV	-88.33V	202.4	-446.8mV
13	-89.59V	193.8	-460.8mV	-89.67V	195.9	-467.0mV
14	-88.72V	203.6	-446.6mV	-89.13V	200.5	-455.0mV
15	-89.44V	204.2	-461.6mV	-89.08V	198.0	-458.0mV
16	-90.07V	197.2	-447.9mV	-89.48V	198.6	-461.7mV
17	-89.62V	200.5	-466.1mV	-90.15V	198.8	-455.8mV
18	-88.27V	192.8	-477.7mV	-88.50V	189.7	-453.3mV
19	-87.47V	200.8	-458.2mV	-87.56V	203.6	-468.6mV
20	-88.83V	193.1	-456.3mV	-89.30V	200.7	-464.7mV
21	-88.78V	195.1	-467.5mV	-88.36V	199.0	-484.6mV
22	-87.61V	191.4	-473.8mV	-89.57V	198.4	-480.5mV
23	-87.40V	190.8	-468.1mV	-89.94V	191.1	-462.6mV
24	-87.47V	194.7	-447.7mV	-90.12V	204.5	-483.4mV
25	-89.74V	194.9	-461.7mV	-88.01V	192.3	-488.2mV
26	-89.05V	191.5	-449.0mV	-88.72V	196.1	-462.0mV
27	-89.81V	190.3	-453.0mV	-87.63V	189.1	-454.6mV
28	-89.07V	201.2	-476.9mV	-88.26V	193.2	-450.7mV
29	-89.24V	200.0	-484.8mV	-88.76V	190.1	-477.7mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.44V	192.7	-443.9mV	-88.16V	192.4	-448.5mV
31	-90.04V	204.1	-470.3mV	-90.02V	201.9	-463.6mV
32	-88.83V	189.9	-468.2mV	-88.48V	199.6	-464.9mV
33	-87.85V	204.9	-448.9mV	-89.17V	199.0	-449.6mV
34	-89.66V	188.9	-449.1mV	-88.04V	202.1	-449.0mV
35	-88.61V	205.4	-463.7mV	-90.20V	189.1	-453.3mV
36	-90.12V	200.8	-481.9mV	-88.83V	190.5	-475.0mV
37	-88.71V	192.2	-477.5mV	-89.29V	192.1	-470.0mV
38	-88.71V	202.0	-460.7mV	-88.83V	201.5	-455.9mV
39	-89.71V	203.1	-483.2mV	-89.63V	202.7	-481.0mV
40	-89.68V	203.5	-467.0mV	-89.05V	205.0	-476.4mV
41	-88.30V	199.6	-455.8mV	-89.51V	198.0	-462.0mV
42	-88.56V	197.5	-484.1mV	-87.53V	191.1	-456.7mV
43	-89.94V	195.9	-469.3mV	-87.94V	202.4	-454.6mV
44	-89.71V	196.2	-453.1mV	-89.28V	192.7	-471.5mV
45	-89.14V	188.9	-479.1mV	-87.98V	192.5	-478.7mV
46	-88.65V	195.1	-448.7mV	-90.16V	190.6	-457.2mV
47	-87.74V	204.7	-448.0mV	-90.00V	195.0	-448.9mV
48	-89.88V	197.6	-447.0mV	-88.94V	192.8	-450.5mV
49	-89.99V	199.4	-477.0mV	-87.62V	205.6	-487.8mV
50	-87.89V	204.8	-464.1mV	-87.94V	205.3	-445.8mV
51	-89.96V	190.7	-463.9mV	-87.50V	199.0	-447.9mV
52	-88.09V	188.9	-479.5mV	-89.03V	195.2	-467.0mV
53	-87.79V	192.9	-465.0mV	-89.86V	190.2	-445.0mV
54	-88.91V	190.3	-450.3mV	-89.89V	196.7	-459.0mV
55	-89.87V	190.0	-487.3mV	-87.66V	204.1	-468.0mV
56	-87.54V	195.4	-482.8mV	-89.11V	200.6	-479.6mV
57	-87.42V	197.1	-479.2mV	-87.79V	203.0	-476.2mV
58	-88.94V	200.8	-486.9mV	-88.59V	200.5	-488.3mV

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.72V	192.1	-483.1mV	-88.50V	195.5	-488.4mV
60	-90.20V	197.9	-455.4mV	-89.84V	202.6	-465.9mV
61	-87.60V	205.4	-454.8mV	-88.14V	189.3	-468.9mV
62	-88.41V	201.7	-488.2mV	-87.46V	201.7	-479.6mV
63	-89.03V	200.5	-485.5mV	-88.19V	192.4	-450.1mV
64	-89.06V	202.8	-483.7mV	-88.17V	193.4	-487.0mV
65	-89.56V	204.2	-475.5mV	-90.14V	201.5	-463.6mV
66	-89.87V	191.4	-444.6mV	-90.03V	198.7	-459.2mV
67	-88.69V	196.6	-451.9mV	-88.96V	193.6	-472.3mV
68	-89.00V	189.3	-466.5mV	-88.48V	205.6	-460.6mV
69	-87.51V	191.3	-460.6mV	-89.24V	202.7	-470.8mV
70	-89.13V	196.1	-452.8mV	-88.65V	198.6	-484.3mV
71	-88.52V	192.3	-462.0mV	-87.94V	193.7	-458.7mV
72	-89.97V	195.4	-464.3mV	-89.84V	190.9	-485.5mV
73	-89.76V	195.4	-483.3mV	-88.62V	190.3	-472.4mV
74	-89.72V	202.0	-459.8mV	-88.07V	200.2	-469.4mV
75	-88.93V	200.6	-460.1mV	-89.36V	199.4	-484.6mV
76	-87.43V	197.8	-454.6mV	-88.62V	189.2	-473.7mV
77	-88.36V	191.4	-463.4mV	-89.12V	189.3	-486.7mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.93V	191.8	-484.1mV	-88.88V	189.3	-487.1mV
2	-87.79V	191.7	-443.9mV	-89.38V	190.4	-477.1mV
3	-88.29V	204.7	-470.2mV	-87.75V	194.1	-486.2mV
4	-88.39V	189.6	-449.2mV	-88.85V	198.8	-471.0mV
5	-87.68V	197.1	-483.2mV	-87.60V	198.5	-472.6mV
6	-89.86V	201.2	-447.7mV	-88.40V	205.0	-464.7mV
7	-87.63V	192.9	-466.5mV	-89.44V	195.4	-481.2mV
8	-89.23V	189.7	-448.4mV	-88.32V	191.2	-463.5mV
9	-88.76V	189.8	-470.3mV	-89.25V	198.5	-474.4mV
10	-89.77V	200.1	-470.3mV	-87.87V	203.3	-487.6mV
11	-89.89V	193.6	-485.2mV	-88.87V	191.7	-485.7mV
12	-88.59V	193.6	-444.5mV	-88.76V	202.1	-483.7mV
13	-87.51V	195.9	-455.8mV	-88.68V	204.1	-474.7mV
14	-87.60V	197.8	-468.5mV	-88.26V	189.7	-447.9mV
15	-88.03V	191.0	-448.2mV	-88.83V	200.7	-457.7mV
16	-89.19V	194.7	-445.5mV	-88.58V	197.8	-461.8mV
17	-89.90V	193.5	-457.9mV	-87.41V	201.0	-445.7mV
18	-87.73V	193.4	-459.3mV	-89.02V	191.6	-471.1mV
19	-88.79V	196.0	-461.0mV	-90.06V	193.5	-476.6mV
20	-87.96V	193.3	-451.6mV	-89.36V	190.2	-488.6mV
21	-88.63V	199.6	-445.1mV	-88.42V	189.4	-448.1mV
22	-88.23V	197.1	-459.7mV	-88.31V	201.2	-447.9mV
23	-87.84V	191.4	-451.0mV	-90.09V	190.2	-448.7mV
24	-87.91V	192.9	-450.9mV	-88.55V	200.2	-466.6mV
25	-90.11V	204.4	-452.7mV	-89.85V	201.3	-464.8mV
26	-89.18V	191.8	-478.5mV	-87.84V	196.4	-479.7mV
27	-89.02V	202.2	-484.1mV	-89.95V	201.3	-453.4mV
28	-89.32V	194.3	-471.8mV	-87.44V	204.1	-461.2mV
29	-87.42V	205.5	-456.8mV	-88.01V	200.5	-485.7mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-87.73V	198.0	-475.1mV	-87.82V	198.9	-455.7mV
31	-88.89V	191.4	-469.1mV	-88.33V	191.8	-464.6mV
32	-88.62V	202.7	-447.1mV	-89.83V	203.7	-449.4mV
33	-87.48V	203.9	-468.1mV	-88.39V	202.6	-479.2mV
34	-88.44V	198.7	-475.3mV	-87.85V	200.4	-475.2mV
35	-89.81V	193.5	-467.9mV	-87.74V	195.7	-462.3mV
36	-88.40V	202.6	-471.7mV	-89.55V	194.9	-460.5mV
37	-88.56V	191.9	-465.5mV	-89.82V	203.5	-467.1mV
38	-89.16V	193.4	-448.8mV	-89.69V	197.5	-448.4mV
39	-88.76V	200.2	-474.7mV	-89.42V	200.3	-454.5mV
40	-87.70V	201.9	-450.4mV	-89.14V	204.3	-448.4mV
41	-89.69V	192.4	-487.8mV	-88.42V	192.8	-481.2mV
42	-89.20V	198.4	-480.2mV	-87.73V	192.7	-458.5mV
43	-89.77V	193.9	-471.8mV	-88.73V	202.9	-459.3mV
44	-89.31V	202.4	-445.4mV	-89.17V	188.9	-459.0mV
45	-88.63V	189.5	-477.5mV	-89.27V	196.8	-480.8mV
46	-87.95V	191.9	-445.4mV	-88.70V	193.0	-480.3mV
47	-89.43V	195.0	-474.6mV	-88.07V	200.6	-471.5mV
48	-87.68V	204.6	-453.2mV	-89.77V	189.9	-452.4mV
49	-89.87V	197.7	-455.1mV	-88.46V	197.0	-444.0mV
50	-89.09V	190.6	-479.4mV	-87.96V	198.6	-458.7mV
51	-89.02V	201.1	-458.8mV	-87.72V	196.1	-464.3mV
52	-90.20V	188.9	-485.6mV	-89.29V	195.4	-474.9mV
53	-89.61V	197.3	-472.9mV	-89.58V	200.6	-447.2mV
54	-88.87V	197.1	-469.8mV	-89.94V	191.7	-458.2mV
55	-87.44V	204.9	-467.1mV	-89.89V	202.6	-475.9mV
56	-89.33V	204.3	-463.4mV	-87.88V	197.6	-451.9mV
57	-88.86V	198.7	-449.7mV	-89.40V	198.9	-450.7mV
58	-88.37V	189.5	-465.3mV	-90.19V	200.0	-450.2mV

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-88.20V	198.5	-466.7mV	-88.24V	199.8	-483.0mV
60	-88.44V	200.7	-458.5mV	-87.73V	194.8	-458.0mV
61	-88.59V	197.9	-449.0mV	-88.31V	203.4	-464.6mV
62	-87.71V	190.0	-486.8mV	-89.44V	202.1	-454.6mV
63	-89.36V	198.3	-477.7mV	-88.40V	205.3	-445.9mV
64	-88.02V	191.8	-455.6mV	-88.38V	190.0	-461.2mV
65	-87.96V	204.2	-462.7mV	-89.38V	202.6	-469.8mV
66	-89.55V	199.3	-447.3mV	-87.46V	196.0	-485.9mV
67	-89.58V	189.2	-475.2mV	-90.19V	191.9	-446.3mV
68	-89.09V	188.7	-485.2mV	-90.19V	194.7	-487.2mV
69	-90.10V	196.8	-444.3mV	-89.91V	201.1	-452.3mV
70	-88.12V	190.0	-454.4mV	-88.42V	198.3	-449.7mV
71	-89.25V	203.6	-483.9mV	-88.61V	198.2	-451.1mV
72	-89.58V	202.4	-445.7mV	-88.87V	199.2	-486.7mV
73	-88.80V	193.4	-445.6mV	-89.51V	191.7	-462.1mV
74	-89.64V	201.3	-449.6mV	-89.58V	189.4	-481.1mV
75	-89.98V	190.9	-448.5mV	-87.58V	205.5	-474.2mV
76	-89.00V	194.0	-481.9mV	-88.37V	193.9	-476.9mV
77	-90.08V	189.2	-454.9mV	-88.92V	190.3	-449.3mV

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T151008-112
Part No : PZT2907A
Test Equipment: JUNO Test System DTS-1000
Test Condition : V(BR)CEO > -60V@IC=-10mA, IB=0；100 < hFE < 300@VCE=-10V, IC=-0.15A
VCE(sat) < -1600mV@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	-89.79V	197.2	-473.1mV	-89.20V	203.5	-449.0mV
2	-87.42V	201.8	-477.1mV	-88.33V	198.7	-448.2mV
3	-89.21V	205.0	-486.1mV	-88.72V	192.2	-450.4mV
4	-89.02V	204.2	-477.1mV	-88.41V	199.7	-486.7mV
5	-88.04V	195.0	-485.2mV	-87.99V	195.0	-455.4mV
6	-87.73V	190.1	-477.5mV	-89.93V	191.9	-462.6mV
7	-88.22V	192.8	-454.1mV	-90.06V	190.8	-443.1mV
8	-87.39V	200.4	-473.1mV	-90.15V	190.3	-450.6mV
9	-89.09V	193.1	-453.1mV	-88.11V	193.6	-481.2mV
10	-88.55V	193.5	-487.1mV	-87.41V	199.5	-483.0mV

Made By: King Huang

Approval: Peter Yang