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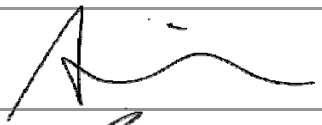
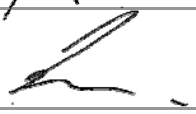
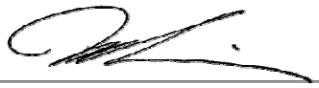
Product/Process Change Notification

PCN#	Effective Date	Issue Date
2014-08-01C-06	2015/2/1	2014/8/1
PCN Classification	Product Category	
Major	SOT-523 Package	
Subject		
Add a molding vendor		
Affected Product(s)		
As attachment		
Description of Change(s)		
In order to avoid shortage of the material, and enhance the speed of delivery, thus, we add a new vendor.		
Content of Change(s)		
Add Molding vendor--ELER-8-100HFE		
Impact(s)		
N/A		
Attachment(s)		
Reliability Teat Report.		

Approval		
Issue by	Alice Lai	e-mail: alice@secosgmbh.com
Development Engineer		Alice Lai
QA Manager		Peter Yang
General Manger		Mathew Liu

For more information, please contact us directly or visit our website http://www.secosgmbh.com

www.SeCosGmbH.com

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Affected Product

BAT54T	2N7002KT	DTA143XE
BAT54AT	2N7002T	DTA143ZE
BAT54CT	SCG2019	DTA144EE
BAT54ST	SCG3019	DTA144TE
SCS715T	SCG4153	DTC113ZE
BAS40T	2SA1774	DTC114EE
BAS40-04T	2SA1832	DTC114TE
BAS40-05T	2SA2018F	DTC114WE
BAS40-06T	2SC4617	DTC114YE
BAS70T	2SC4618	DTC123JE
BAS70-04T	2SC4738	DTC123YE
BAS70-05T	2SC5585	DTC124EE
BAS70-06T	BC847T	DTC143EE
SCS221T	MMBT2222AT	DTC143TE
MMBD4148T	MMBT2907FW	DTC143XE
MMBD4448HT	MMBT3904FW	DTC143ZE
MMBD4448HTA	MMBT3904T	DTC144EE
MMBD4448HTC	MMBT3906FW	DTC144TE
MMBD4448HTS	MMBT3906T	
SCS222NT	DTA114EE	
SCS222PT	DTA114TE	
BAS16T	DTA114YE	
BAV70T	DTA123JE	
BAV99T	DTA123YE	
BAW56T	DTA124EE	
BAS21T	DTA143EE	
MM5ZxxxT Series	DTA143TE	

SeCoS Corporation

Reliability Testing Summary Report

Date: 2014/06/30 Document No.: SH14 -06- 39

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	BAT54ST	100 ± 5℃, 100%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	BAT54ST	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	BAT54ST	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	BAT54ST	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	BAT54ST	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	BAT54ST	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solderability	BAT54ST	245 ± 5℃, 5Sec the inspected area of each lead must have 95% solder coverage minimum		10	0	0	ACC

Judgment:

■ **qualified** □ **unqualified**

Testing Start Date: 2014.05.05 Testing End Date: 2014.06.30

Tester: Leo Hsia Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
1	456.0mV	53.17V	0.483uA
2	466.5mV	53.50V	0.506uA
3	461.4mV	52.62V	0.537uA
4	460.7mV	52.77V	0.500uA
5	467.3mV	53.57V	0.498uA
6	458.6mV	53.57V	0.522uA
7	462.7mV	52.80V	0.533uA
8	459.5mV	52.77V	0.555uA
9	466.1mV	52.69V	0.487uA
10	459.7mV	52.71V	0.537uA
11	459.0mV	53.41V	0.572uA
12	457.2mV	53.19V	0.489uA
13	457.5mV	53.21V	0.518uA
14	458.9mV	52.97V	0.586uA
15	456.9mV	52.47V	0.524uA
16	461.1mV	53.62V	0.579uA
17	458.0mV	52.81V	0.486uA
18	462.8mV	53.60V	0.493uA
19	459.6mV	53.30V	0.577uA
20	457.4mV	53.32V	0.489uA
21	465.5mV	52.98V	0.520uA
22	463.9mV	53.69V	0.567uA
23	456.3mV	52.83V	0.513uA
24	464.1mV	53.13V	0.534uA
25	456.6mV	53.04V	0.511uA
26	461.1mV	53.02V	0.508uA
27	458.1mV	52.70V	0.553uA
28	455.3mV	53.57V	0.531uA
29	464.5mV	53.41V	0.554uA
30	457.3mV	52.81V	0.549uA
31	465.7mV	53.06V	0.514uA

SeCoS Corporation

Electrical Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
32	457.7mV	53.57V	0.532uA
33	458.1mV	53.19V	0.563uA
34	465.1mV	53.35V	0.485uA
35	462.5mV	52.77V	0.556uA
36	467.1mV	52.58V	0.485uA
37	466.2mV	53.71V	0.496uA
38	457.5mV	52.78V	0.542uA
39	458.7mV	53.42V	0.492uA
40	466.3mV	53.48V	0.577uA
41	465.6mV	53.26V	0.486uA
42	457.9mV	53.39V	0.489uA
43	456.3mV	52.69V	0.578uA
44	464.1mV	52.61V	0.580uA
45	458.7mV	52.54V	0.586uA
46	459.3mV	52.69V	0.580uA
47	455.5mV	52.61V	0.482uA
48	456.3mV	53.09V	0.554uA
49	459.9mV	53.57V	0.507uA
50	459.1mV	52.70V	0.571uA
51	461.7mV	52.49V	0.537uA
52	462.9mV	53.42V	0.493uA
53	466.6mV	52.71V	0.582uA
54	462.9mV	53.11V	0.540uA
55	457.9mV	52.58V	0.552uA
56	465.5mV	52.57V	0.573uA
57	456.5mV	53.52V	0.580uA
58	456.3mV	52.54V	0.585uA
59	457.6mV	53.03V	0.541uA
60	465.1mV	53.08V	0.547uA
61	464.5mV	52.77V	0.543uA
62	460.3mV	52.83V	0.561uA

SeCoS Corporation

Electrical Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 25℃
Test Date: 2014.05.05 ~ 2014.05.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
63	458.9mV	53.07V	0.566uA
64	459.6mV	52.64V	0.523uA
65	464.7mV	53.04V	0.548uA
66	455.3mV	53.27V	0.577uA
67	462.6mV	52.59V	0.506uA
68	460.1mV	52.99V	0.511uA
69	464.4mV	52.52V	0.539uA
70	457.4mV	52.83V	0.496uA
71	458.9mV	53.33V	0.569uA
72	465.3mV	52.56V	0.518uA
73	455.4mV	52.78V	0.552uA
74	456.7mV	52.77V	0.489uA
75	457.2mV	52.97V	0.530uA
76	465.8mV	53.66V	0.545uA
77	458.9mV	53.18V	0.534uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	467.3mV	53.14V	0.481uA	460.3mV	52.53V	0.585uA
2	465.7mV	53.29V	0.560uA	466.2mV	53.35V	0.566uA
3	461.1mV	53.49V	0.589uA	456.2mV	53.58V	0.516uA
4	460.6mV	52.59V	0.568uA	460.5mV	53.40V	0.519uA
5	456.5mV	53.46V	0.574uA	456.0mV	53.41V	0.517uA
6	459.8mV	52.64V	0.481uA	457.1mV	53.37V	0.498uA
7	460.7mV	53.64V	0.570uA	459.7mV	53.62V	0.579uA
8	460.9mV	52.74V	0.575uA	458.8mV	52.54V	0.510uA
9	457.1mV	53.15V	0.521uA	458.1mV	52.94V	0.575uA
10	461.5mV	52.90V	0.516uA	463.0mV	52.77V	0.490uA
11	460.4mV	53.35V	0.519uA	460.2mV	53.04V	0.587uA
12	459.6mV	53.32V	0.487uA	464.8mV	53.25V	0.488uA
13	465.0mV	53.30V	0.526uA	465.7mV	53.47V	0.542uA
14	461.1mV	52.51V	0.551uA	460.8mV	52.47V	0.510uA
15	466.8mV	53.22V	0.579uA	462.5mV	52.58V	0.500uA
16	456.1mV	52.58V	0.557uA	459.8mV	53.47V	0.567uA
17	467.1mV	53.37V	0.555uA	465.2mV	52.99V	0.569uA
18	466.3mV	53.10V	0.542uA	462.3mV	53.12V	0.528uA
19	466.2mV	52.61V	0.496uA	465.9mV	52.79V	0.575uA
20	465.6mV	52.54V	0.494uA	458.8mV	52.88V	0.519uA
21	456.2mV	53.05V	0.522uA	460.1mV	52.94V	0.557uA
22	465.2mV	53.38V	0.502uA	456.2mV	53.58V	0.512uA
23	467.1mV	52.53V	0.487uA	461.0mV	52.97V	0.489uA
24	461.6mV	52.67V	0.498uA	466.7mV	52.66V	0.523uA
25	465.5mV	52.72V	0.512uA	457.3mV	53.58V	0.528uA
26	462.2mV	52.69V	0.524uA	460.3mV	52.87V	0.500uA
27	463.0mV	52.62V	0.561uA	460.0mV	53.02V	0.584uA
28	465.0mV	53.36V	0.580uA	465.1mV	52.99V	0.482uA
29	463.1mV	52.78V	0.521uA	455.1mV	53.55V	0.586uA
30	455.1mV	53.16V	0.509uA	459.7mV	53.52V	0.547uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	458.3mV	53.39V	0.573uA	465.8mV	52.70V	0.590uA
32	463.8mV	52.71V	0.565uA	465.4mV	52.92V	0.558uA
33	462.8mV	52.91V	0.521uA	457.6mV	53.11V	0.523uA
34	460.2mV	52.62V	0.518uA	460.4mV	52.58V	0.555uA
35	461.1mV	53.42V	0.519uA	457.1mV	52.78V	0.546uA
36	465.2mV	53.04V	0.529uA	455.6mV	53.63V	0.569uA
37	463.2mV	53.57V	0.512uA	462.6mV	53.10V	0.493uA
38	467.3mV	53.45V	0.533uA	456.2mV	52.97V	0.526uA
39	459.8mV	52.64V	0.523uA	457.2mV	53.51V	0.538uA
40	464.6mV	53.50V	0.545uA	467.3mV	53.43V	0.525uA
41	460.4mV	53.62V	0.524uA	455.4mV	53.57V	0.505uA
42	457.0mV	53.07V	0.493uA	467.1mV	52.65V	0.553uA
43	464.4mV	53.70V	0.550uA	462.3mV	52.83V	0.509uA
44	461.8mV	53.64V	0.555uA	457.7mV	52.95V	0.559uA
45	459.0mV	52.73V	0.553uA	455.8mV	52.69V	0.518uA
46	458.5mV	53.71V	0.523uA	463.5mV	52.94V	0.488uA
47	455.9mV	52.75V	0.586uA	465.9mV	52.93V	0.554uA
48	461.3mV	52.77V	0.575uA	466.1mV	52.87V	0.562uA
49	462.9mV	52.54V	0.515uA	465.3mV	52.74V	0.533uA
50	461.8mV	52.88V	0.549uA	463.3mV	53.42V	0.582uA
51	455.2mV	53.32V	0.548uA	462.7mV	52.49V	0.493uA
52	455.8mV	53.52V	0.572uA	466.7mV	52.80V	0.513uA
53	465.5mV	52.88V	0.509uA	457.4mV	52.56V	0.525uA
54	466.6mV	53.26V	0.523uA	461.9mV	53.04V	0.504uA
55	457.5mV	53.62V	0.548uA	465.3mV	52.71V	0.537uA
56	464.5mV	53.19V	0.512uA	457.2mV	53.69V	0.552uA
57	462.5mV	52.79V	0.562uA	462.4mV	52.58V	0.541uA
58	462.9mV	53.25V	0.506uA	456.1mV	52.70V	0.537uA
59	460.2mV	53.13V	0.584uA	458.3mV	52.80V	0.541uA
60	465.0mV	53.41V	0.514uA	466.2mV	53.25V	0.542uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 100 ± 5℃, 100%VR, T = 1000 hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	458.9mV	52.82V	0.543uA	459.4mV	52.95V	0.570uA
62	457.6mV	52.53V	0.530uA	465.5mV	53.21V	0.554uA
63	465.4mV	53.30V	0.531uA	457.1mV	53.19V	0.585uA
64	455.5mV	53.21V	0.573uA	466.2mV	53.08V	0.505uA
65	455.7mV	53.19V	0.509uA	466.0mV	52.91V	0.487uA
66	460.8mV	52.71V	0.549uA	465.4mV	53.07V	0.524uA
67	458.3mV	52.72V	0.580uA	456.0mV	53.26V	0.586uA
68	464.9mV	53.53V	0.502uA	461.7mV	52.76V	0.565uA
69	463.8mV	53.40V	0.543uA	461.4mV	52.67V	0.517uA
70	464.8mV	52.58V	0.569uA	457.3mV	53.23V	0.552uA
71	462.5mV	53.59V	0.565uA	458.3mV	53.56V	0.500uA
72	466.8mV	52.51V	0.527uA	465.4mV	53.36V	0.521uA
73	455.2mV	53.59V	0.545uA	465.4mV	53.51V	0.585uA
74	456.0mV	53.70V	0.550uA	460.4mV	52.98V	0.501uA
75	466.5mV	53.62V	0.544uA	457.5mV	52.68V	0.503uA
76	466.8mV	53.67V	0.500uA	458.4mV	53.57V	0.583uA
77	463.6mV	53.58V	0.584uA	457.6mV	52.77V	0.588uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	465.6mV	52.94V	0.581uA	461.9mV	52.95V	0.581uA
2	458.0mV	53.62V	0.510uA	459.9mV	53.34V	0.590uA
3	465.0mV	53.11V	0.533uA	466.8mV	53.67V	0.481uA
4	466.6mV	53.69V	0.563uA	458.3mV	53.20V	0.528uA
5	461.0mV	53.67V	0.492uA	462.4mV	53.50V	0.540uA
6	456.9mV	53.30V	0.539uA	459.5mV	53.12V	0.486uA
7	467.3mV	53.07V	0.545uA	466.3mV	53.51V	0.572uA
8	461.9mV	52.88V	0.540uA	464.6mV	52.88V	0.571uA
9	457.5mV	52.50V	0.486uA	455.6mV	52.86V	0.512uA
10	459.8mV	53.57V	0.562uA	462.5mV	53.23V	0.573uA
11	459.4mV	52.79V	0.485uA	459.5mV	52.84V	0.514uA
12	460.6mV	53.68V	0.518uA	455.6mV	53.15V	0.562uA
13	466.3mV	53.13V	0.555uA	461.1mV	52.87V	0.505uA
14	458.3mV	53.09V	0.536uA	456.4mV	53.67V	0.588uA
15	466.5mV	53.39V	0.567uA	466.6mV	53.46V	0.586uA
16	466.7mV	52.75V	0.547uA	467.3mV	53.65V	0.501uA
17	466.0mV	53.00V	0.498uA	464.8mV	53.68V	0.551uA
18	461.2mV	53.42V	0.533uA	462.5mV	53.34V	0.575uA
19	461.5mV	53.37V	0.527uA	457.4mV	53.35V	0.491uA
20	456.0mV	52.74V	0.557uA	462.3mV	53.63V	0.509uA
21	460.5mV	53.51V	0.560uA	463.6mV	53.33V	0.509uA
22	455.7mV	53.30V	0.488uA	460.3mV	53.09V	0.580uA
23	464.3mV	53.42V	0.514uA	463.6mV	52.74V	0.544uA
24	465.8mV	52.61V	0.581uA	456.6mV	53.23V	0.543uA
25	465.6mV	52.77V	0.500uA	458.4mV	52.63V	0.502uA
26	466.9mV	52.62V	0.498uA	460.8mV	53.04V	0.480uA
27	459.7mV	53.30V	0.504uA	460.0mV	52.54V	0.570uA
28	460.5mV	52.81V	0.545uA	467.0mV	53.36V	0.560uA
29	463.0mV	52.71V	0.550uA	462.4mV	52.91V	0.492uA
30	459.8mV	53.59V	0.496uA	462.8mV	52.61V	0.495uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	456.2mV	53.32V	0.507uA	457.2mV	52.66V	0.497uA
32	457.2mV	53.68V	0.487uA	462.2mV	52.60V	0.548uA
33	459.8mV	53.29V	0.572uA	466.8mV	52.80V	0.533uA
34	461.7mV	53.23V	0.481uA	460.0mV	53.62V	0.515uA
35	460.9mV	52.93V	0.495uA	465.9mV	53.46V	0.519uA
36	460.7mV	53.69V	0.500uA	459.2mV	53.14V	0.540uA
37	457.2mV	53.09V	0.512uA	466.1mV	53.30V	0.516uA
38	456.3mV	53.29V	0.564uA	461.9mV	52.50V	0.510uA
39	460.9mV	52.99V	0.509uA	460.4mV	52.84V	0.508uA
40	460.0mV	53.02V	0.491uA	457.6mV	52.67V	0.505uA
41	461.9mV	53.19V	0.558uA	464.8mV	52.86V	0.495uA
42	458.3mV	53.70V	0.539uA	458.9mV	53.03V	0.501uA
43	456.9mV	52.89V	0.588uA	462.3mV	52.66V	0.585uA
44	465.6mV	53.52V	0.505uA	456.3mV	53.51V	0.534uA
45	458.4mV	53.54V	0.497uA	463.9mV	53.14V	0.561uA
46	464.6mV	53.43V	0.493uA	466.3mV	53.20V	0.573uA
47	458.1mV	53.25V	0.529uA	466.3mV	52.49V	0.493uA
48	460.5mV	53.56V	0.545uA	464.0mV	52.68V	0.498uA
49	457.3mV	53.06V	0.488uA	464.4mV	53.50V	0.564uA
50	463.6mV	53.43V	0.520uA	465.1mV	52.64V	0.537uA
51	461.7mV	53.00V	0.504uA	465.0mV	53.68V	0.587uA
52	455.6mV	53.60V	0.550uA	461.2mV	52.68V	0.537uA
53	456.3mV	52.54V	0.522uA	465.7mV	52.65V	0.537uA
54	464.2mV	52.70V	0.572uA	464.2mV	52.76V	0.578uA
55	455.3mV	53.57V	0.564uA	465.9mV	52.64V	0.528uA
56	460.5mV	53.31V	0.559uA	459.3mV	52.79V	0.520uA
57	458.7mV	52.72V	0.480uA	465.9mV	53.16V	0.575uA
58	464.3mV	53.68V	0.580uA	457.1mV	52.97V	0.509uA
59	464.5mV	53.29V	0.578uA	461.3mV	53.38V	0.498uA
60	457.8mV	53.16V	0.511uA	455.8mV	52.77V	0.527uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.05.05 ~ 2014.06.15
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	462.1mV	52.73V	0.583uA	458.5mV	53.40V	0.554uA
62	464.9mV	52.59V	0.519uA	463.2mV	53.10V	0.559uA
63	463.6mV	52.52V	0.492uA	461.6mV	53.00V	0.498uA
64	463.2mV	53.29V	0.519uA	462.0mV	52.83V	0.557uA
65	455.4mV	52.59V	0.505uA	457.6mV	53.24V	0.509uA
66	465.9mV	53.43V	0.551uA	466.7mV	52.60V	0.509uA
67	457.0mV	53.52V	0.529uA	459.6mV	53.68V	0.551uA
68	463.8mV	52.76V	0.508uA	462.4mV	52.93V	0.555uA
69	461.9mV	53.07V	0.515uA	462.7mV	53.58V	0.557uA
70	456.4mV	52.74V	0.570uA	462.1mV	52.81V	0.546uA
71	457.9mV	53.10V	0.500uA	456.6mV	53.25V	0.532uA
72	465.0mV	52.74V	0.516uA	464.3mV	52.52V	0.546uA
73	461.5mV	53.18V	0.538uA	455.3mV	53.45V	0.533uA
74	462.3mV	53.15V	0.486uA	466.6mV	52.79V	0.516uA
75	463.5mV	53.47V	0.521uA	462.7mV	52.59V	0.536uA
76	457.9mV	52.62V	0.519uA	465.0mV	52.52V	0.566uA
77	463.8mV	53.25V	0.545uA	457.8mV	53.09V	0.506uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	459.8mV	52.93V	0.532uA	465.1mV	53.48V	0.565uA
2	462.6mV	52.91V	0.525uA	462.2mV	53.21V	0.500uA
3	459.8mV	53.09V	0.488uA	460.7mV	52.76V	0.497uA
4	463.7mV	53.39V	0.510uA	462.2mV	53.65V	0.540uA
5	465.9mV	53.31V	0.572uA	463.4mV	53.67V	0.496uA
6	458.0mV	52.52V	0.525uA	459.7mV	52.68V	0.578uA
7	463.0mV	53.44V	0.505uA	457.0mV	53.25V	0.529uA
8	463.1mV	53.57V	0.573uA	466.7mV	53.32V	0.493uA
9	459.0mV	53.24V	0.579uA	458.2mV	52.99V	0.544uA
10	464.7mV	53.44V	0.541uA	464.4mV	53.66V	0.497uA
11	459.6mV	52.81V	0.525uA	457.0mV	53.14V	0.563uA
12	458.1mV	52.70V	0.586uA	460.7mV	52.83V	0.492uA
13	458.4mV	52.64V	0.489uA	462.7mV	52.78V	0.562uA
14	465.1mV	53.02V	0.489uA	455.5mV	52.52V	0.500uA
15	461.7mV	53.57V	0.521uA	456.0mV	53.28V	0.571uA
16	465.6mV	53.26V	0.551uA	461.8mV	53.10V	0.562uA
17	457.3mV	52.92V	0.536uA	460.4mV	53.58V	0.543uA
18	459.0mV	53.66V	0.523uA	461.1mV	52.55V	0.487uA
19	458.2mV	53.30V	0.513uA	466.5mV	52.90V	0.493uA
20	461.3mV	53.69V	0.570uA	462.3mV	53.01V	0.507uA
21	461.3mV	53.25V	0.567uA	460.3mV	52.95V	0.572uA
22	459.4mV	53.67V	0.584uA	458.9mV	52.91V	0.534uA
23	455.9mV	53.10V	0.508uA	466.2mV	53.71V	0.574uA
24	458.8mV	53.32V	0.487uA	464.9mV	53.09V	0.533uA
25	464.5mV	53.20V	0.521uA	463.7mV	52.61V	0.570uA
26	461.9mV	52.72V	0.489uA	463.6mV	53.42V	0.571uA
27	465.6mV	52.62V	0.502uA	459.1mV	52.92V	0.498uA
28	455.1mV	52.57V	0.577uA	464.2mV	53.35V	0.548uA
29	460.4mV	53.08V	0.589uA	457.0mV	53.70V	0.549uA
30	457.8mV	53.11V	0.494uA	457.3mV	53.14V	0.552uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	460.2mV	52.93V	0.585uA	460.2mV	52.59V	0.489uA
32	461.1mV	53.40V	0.587uA	457.0mV	52.72V	0.498uA
33	455.2mV	52.73V	0.587uA	456.2mV	52.58V	0.580uA
34	456.0mV	52.66V	0.588uA	461.4mV	52.54V	0.515uA
35	459.7mV	53.17V	0.530uA	455.3mV	53.17V	0.565uA
36	458.2mV	52.48V	0.535uA	463.9mV	53.06V	0.515uA
37	459.4mV	52.84V	0.489uA	465.3mV	53.11V	0.557uA
38	467.3mV	52.47V	0.519uA	462.9mV	53.12V	0.559uA
39	461.5mV	53.09V	0.480uA	462.5mV	52.52V	0.480uA
40	461.1mV	52.74V	0.532uA	461.5mV	53.35V	0.502uA
41	462.9mV	53.42V	0.547uA	460.9mV	52.79V	0.488uA
42	460.3mV	53.14V	0.499uA	466.1mV	52.84V	0.490uA
43	459.4mV	53.36V	0.530uA	461.1mV	52.92V	0.494uA
44	455.7mV	53.46V	0.512uA	457.4mV	52.62V	0.570uA
45	462.9mV	53.52V	0.508uA	458.3mV	53.68V	0.575uA
46	459.1mV	52.53V	0.570uA	461.0mV	53.03V	0.573uA
47	467.2mV	52.64V	0.587uA	466.5mV	53.39V	0.530uA
48	461.8mV	52.66V	0.532uA	456.4mV	53.19V	0.532uA
49	464.8mV	53.00V	0.569uA	460.6mV	52.56V	0.522uA
50	457.6mV	52.95V	0.580uA	464.3mV	53.38V	0.563uA
51	467.0mV	53.61V	0.494uA	461.7mV	52.73V	0.571uA
52	463.0mV	52.87V	0.587uA	461.3mV	53.30V	0.519uA
53	464.7mV	53.23V	0.488uA	461.5mV	53.64V	0.555uA
54	463.6mV	53.09V	0.552uA	466.2mV	52.81V	0.563uA
55	458.5mV	53.60V	0.480uA	464.2mV	52.62V	0.557uA
56	465.0mV	52.76V	0.521uA	461.7mV	52.68V	0.493uA
57	462.5mV	52.54V	0.551uA	463.3mV	53.06V	0.515uA
58	455.9mV	52.56V	0.588uA	464.6mV	53.54V	0.542uA
59	458.9mV	52.87V	0.498uA	464.3mV	53.08V	0.512uA
60	458.3mV	53.22V	0.583uA	460.8mV	53.53V	0.515uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.05.05 ~ 2014.05.11
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	464.4mV	52.60V	0.566uA	464.6mV	53.38V	0.550uA
62	458.7mV	52.83V	0.565uA	457.1mV	52.50V	0.515uA
63	459.1mV	52.57V	0.582uA	464.4mV	52.58V	0.554uA
64	458.2mV	53.61V	0.556uA	464.9mV	52.57V	0.587uA
65	456.1mV	53.21V	0.527uA	458.8mV	52.87V	0.569uA
66	464.2mV	52.85V	0.580uA	463.7mV	52.47V	0.542uA
67	455.3mV	53.40V	0.551uA	458.7mV	52.61V	0.549uA
68	457.7mV	52.63V	0.523uA	466.7mV	52.71V	0.500uA
69	456.4mV	52.74V	0.555uA	464.8mV	53.03V	0.490uA
70	463.0mV	52.65V	0.565uA	459.1mV	53.24V	0.580uA
71	463.0mV	53.27V	0.532uA	457.4mV	53.05V	0.509uA
72	456.0mV	52.85V	0.541uA	466.0mV	52.89V	0.561uA
73	455.3mV	53.56V	0.566uA	465.6mV	52.52V	0.483uA
74	460.3mV	52.63V	0.537uA	466.0mV	52.92V	0.522uA
75	456.3mV	53.68V	0.569uA	455.2mV	52.94V	0.565uA
76	455.2mV	53.51V	0.553uA	460.6mV	53.10V	0.506uA
77	457.3mV	53.16V	0.524uA	457.3mV	52.81V	0.553uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	464.7mV	53.24V	0.496uA	465.9mV	52.63V	0.586uA
2	458.2mV	52.52V	0.511uA	460.9mV	53.60V	0.523uA
3	464.9mV	52.71V	0.575uA	458.3mV	53.31V	0.528uA
4	466.7mV	53.06V	0.507uA	462.7mV	52.69V	0.557uA
5	458.9mV	53.68V	0.553uA	458.4mV	53.21V	0.555uA
6	458.7mV	53.44V	0.551uA	457.4mV	52.54V	0.528uA
7	459.8mV	53.61V	0.537uA	457.8mV	53.21V	0.541uA
8	458.4mV	53.27V	0.482uA	456.1mV	52.82V	0.486uA
9	466.6mV	52.52V	0.564uA	460.1mV	53.69V	0.516uA
10	461.7mV	53.33V	0.541uA	457.4mV	53.56V	0.485uA
11	464.9mV	52.76V	0.515uA	464.7mV	52.50V	0.527uA
12	456.6mV	53.04V	0.511uA	457.3mV	52.53V	0.517uA
13	456.8mV	52.60V	0.566uA	460.0mV	52.76V	0.579uA
14	457.7mV	52.67V	0.584uA	461.5mV	52.78V	0.538uA
15	455.5mV	53.44V	0.509uA	458.7mV	52.74V	0.588uA
16	465.1mV	52.95V	0.575uA	460.4mV	52.72V	0.583uA
17	464.1mV	53.37V	0.535uA	457.4mV	53.37V	0.546uA
18	463.0mV	53.60V	0.510uA	463.9mV	53.27V	0.546uA
19	455.1mV	52.62V	0.577uA	464.7mV	52.64V	0.553uA
20	458.5mV	53.43V	0.562uA	465.3mV	53.66V	0.500uA
21	466.3mV	53.22V	0.580uA	461.3mV	53.04V	0.481uA
22	457.2mV	53.06V	0.533uA	458.5mV	52.72V	0.589uA
23	460.3mV	53.37V	0.490uA	464.0mV	53.52V	0.549uA
24	465.6mV	52.71V	0.532uA	462.3mV	53.24V	0.550uA
25	464.3mV	52.62V	0.513uA	462.4mV	52.51V	0.543uA
26	467.2mV	53.28V	0.559uA	458.7mV	53.11V	0.541uA
27	464.6mV	53.03V	0.570uA	461.6mV	52.66V	0.565uA
28	456.2mV	53.25V	0.523uA	457.4mV	52.81V	0.557uA
29	457.5mV	53.69V	0.578uA	465.4mV	52.89V	0.550uA
30	461.0mV	52.56V	0.538uA	467.0mV	53.48V	0.506uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	456.8mV	52.97V	0.536uA	465.0mV	53.48V	0.531uA
32	466.2mV	53.46V	0.513uA	458.6mV	53.27V	0.567uA
33	467.3mV	53.37V	0.538uA	463.9mV	53.70V	0.522uA
34	458.8mV	52.98V	0.536uA	455.3mV	53.10V	0.507uA
35	465.2mV	53.60V	0.551uA	461.4mV	52.48V	0.526uA
36	464.1mV	53.63V	0.570uA	459.6mV	53.52V	0.502uA
37	467.0mV	52.80V	0.583uA	458.3mV	53.09V	0.517uA
38	456.0mV	52.87V	0.567uA	459.6mV	53.07V	0.578uA
39	460.3mV	53.68V	0.536uA	460.8mV	52.71V	0.587uA
40	460.1mV	52.58V	0.522uA	456.3mV	53.36V	0.563uA
41	464.0mV	52.81V	0.564uA	462.9mV	53.27V	0.568uA
42	467.2mV	53.55V	0.577uA	458.4mV	52.71V	0.496uA
43	458.0mV	52.90V	0.542uA	458.8mV	52.51V	0.545uA
44	456.9mV	52.67V	0.546uA	455.2mV	53.56V	0.568uA
45	455.7mV	53.12V	0.558uA	461.1mV	53.33V	0.563uA
46	458.9mV	53.03V	0.565uA	459.4mV	52.82V	0.533uA
47	457.9mV	52.72V	0.485uA	462.0mV	53.66V	0.511uA
48	457.4mV	53.68V	0.563uA	461.4mV	53.50V	0.582uA
49	461.7mV	53.64V	0.581uA	461.7mV	52.61V	0.529uA
50	463.1mV	53.44V	0.527uA	460.0mV	53.40V	0.489uA
51	465.3mV	52.94V	0.535uA	461.4mV	53.19V	0.507uA
52	466.5mV	52.93V	0.505uA	466.5mV	52.77V	0.585uA
53	455.6mV	53.63V	0.550uA	456.3mV	52.95V	0.568uA
54	460.2mV	52.76V	0.547uA	460.2mV	53.35V	0.522uA
55	463.4mV	53.28V	0.529uA	464.5mV	53.70V	0.571uA
56	465.4mV	53.37V	0.496uA	456.8mV	53.57V	0.496uA
57	455.3mV	53.27V	0.492uA	457.9mV	53.66V	0.509uA
58	462.4mV	53.02V	0.580uA	465.9mV	53.37V	0.566uA
59	460.4mV	53.00V	0.569uA	460.3mV	53.33V	0.564uA
60	463.2mV	52.74V	0.541uA	455.7mV	52.70V	0.560uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.05.05 ~ 2014.06.25
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	462.7mV	52.66V	0.568uA	457.0mV	52.68V	0.511uA
62	465.0mV	52.91V	0.534uA	460.7mV	53.25V	0.573uA
63	465.2mV	52.74V	0.575uA	465.9mV	53.17V	0.526uA
64	460.6mV	52.50V	0.519uA	464.0mV	53.54V	0.545uA
65	455.5mV	53.66V	0.565uA	460.9mV	52.82V	0.553uA
66	463.2mV	52.81V	0.525uA	455.2mV	52.87V	0.546uA
67	462.1mV	53.64V	0.576uA	464.8mV	53.64V	0.486uA
68	455.3mV	53.23V	0.490uA	464.4mV	52.58V	0.558uA
69	460.7mV	53.44V	0.586uA	463.7mV	53.55V	0.517uA
70	458.5mV	52.66V	0.571uA	460.1mV	52.64V	0.496uA
71	459.2mV	53.17V	0.489uA	456.6mV	52.76V	0.540uA
72	465.5mV	53.01V	0.515uA	464.7mV	53.01V	0.484uA
73	461.0mV	52.96V	0.578uA	458.3mV	52.89V	0.506uA
74	461.2mV	53.61V	0.498uA	461.7mV	53.66V	0.511uA
75	462.0mV	53.12V	0.575uA	456.7mV	52.83V	0.490uA
76	462.5mV	52.94V	0.576uA	455.5mV	53.59V	0.488uA
77	460.7mV	52.71V	0.504uA	460.7mV	53.54V	0.498uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	464.7mV	52.53V	0.558uA	465.0mV	52.94V	0.501uA
2	466.9mV	52.54V	0.496uA	460.9mV	53.67V	0.584uA
3	464.3mV	52.62V	0.502uA	459.5mV	52.81V	0.560uA
4	462.1mV	53.41V	0.558uA	456.9mV	53.12V	0.562uA
5	465.9mV	52.71V	0.545uA	459.9mV	52.98V	0.546uA
6	459.6mV	53.65V	0.485uA	466.2mV	52.61V	0.549uA
7	461.0mV	53.26V	0.556uA	465.3mV	53.60V	0.573uA
8	455.6mV	53.31V	0.575uA	463.7mV	53.64V	0.572uA
9	464.6mV	52.58V	0.547uA	455.3mV	52.53V	0.545uA
10	456.1mV	53.13V	0.489uA	462.3mV	53.64V	0.532uA
11	456.1mV	52.57V	0.558uA	462.2mV	53.44V	0.482uA
12	465.7mV	53.13V	0.541uA	455.3mV	53.01V	0.546uA
13	459.0mV	52.95V	0.544uA	465.0mV	53.43V	0.525uA
14	462.2mV	53.40V	0.510uA	462.4mV	52.68V	0.551uA
15	463.1mV	52.51V	0.513uA	456.0mV	53.00V	0.585uA
16	467.1mV	53.53V	0.530uA	457.8mV	53.30V	0.543uA
17	459.1mV	52.97V	0.540uA	458.7mV	53.61V	0.551uA
18	464.6mV	53.62V	0.494uA	456.7mV	53.39V	0.492uA
19	458.4mV	52.99V	0.543uA	464.6mV	52.77V	0.532uA
20	464.2mV	53.68V	0.578uA	462.6mV	53.13V	0.514uA
21	459.4mV	53.35V	0.546uA	455.9mV	53.19V	0.553uA
22	460.1mV	52.95V	0.547uA	466.1mV	52.55V	0.572uA
23	460.9mV	53.31V	0.551uA	465.9mV	53.23V	0.540uA
24	456.9mV	53.44V	0.525uA	456.6mV	52.78V	0.497uA
25	463.2mV	52.51V	0.579uA	456.2mV	52.85V	0.580uA
26	457.4mV	52.56V	0.538uA	463.4mV	53.43V	0.580uA
27	458.5mV	52.98V	0.484uA	463.9mV	53.34V	0.556uA
28	466.9mV	53.00V	0.506uA	460.9mV	52.50V	0.531uA
29	460.4mV	53.29V	0.484uA	457.6mV	53.51V	0.565uA
30	457.3mV	52.87V	0.497uA	460.8mV	53.58V	0.552uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	464.1mV	52.87V	0.576uA	465.5mV	52.79V	0.563uA
32	457.7mV	53.03V	0.481uA	459.8mV	52.62V	0.551uA
33	466.2mV	53.28V	0.486uA	460.7mV	53.65V	0.578uA
34	466.1mV	52.78V	0.520uA	457.0mV	53.50V	0.509uA
35	467.2mV	53.62V	0.577uA	464.8mV	52.85V	0.572uA
36	456.6mV	52.50V	0.565uA	457.9mV	52.53V	0.561uA
37	457.9mV	52.86V	0.509uA	460.5mV	52.59V	0.489uA
38	467.1mV	53.08V	0.483uA	466.1mV	52.79V	0.552uA
39	455.5mV	53.05V	0.565uA	457.9mV	52.76V	0.536uA
40	457.7mV	53.20V	0.515uA	457.8mV	53.67V	0.556uA
41	460.8mV	53.58V	0.505uA	463.1mV	53.11V	0.526uA
42	463.5mV	53.54V	0.522uA	463.3mV	52.60V	0.519uA
43	458.0mV	53.67V	0.585uA	466.0mV	53.66V	0.500uA
44	462.0mV	52.61V	0.558uA	464.2mV	53.42V	0.566uA
45	457.2mV	52.87V	0.501uA	459.8mV	52.74V	0.541uA
46	459.4mV	52.65V	0.538uA	466.1mV	53.52V	0.518uA
47	465.7mV	53.25V	0.543uA	461.9mV	52.71V	0.554uA
48	457.3mV	53.53V	0.489uA	455.6mV	53.16V	0.571uA
49	467.2mV	52.53V	0.508uA	462.6mV	52.55V	0.559uA
50	461.3mV	53.45V	0.558uA	465.7mV	52.90V	0.547uA
51	462.7mV	53.05V	0.521uA	462.4mV	53.52V	0.482uA
52	461.8mV	52.86V	0.553uA	461.6mV	52.53V	0.559uA
53	458.0mV	53.13V	0.493uA	460.6mV	52.71V	0.489uA
54	461.3mV	53.71V	0.480uA	457.0mV	52.70V	0.535uA
55	456.5mV	52.57V	0.559uA	465.2mV	52.69V	0.541uA
56	465.4mV	52.85V	0.538uA	457.4mV	53.63V	0.499uA
57	465.6mV	53.39V	0.481uA	466.1mV	53.18V	0.581uA
58	458.9mV	53.64V	0.483uA	458.5mV	52.75V	0.482uA
59	465.6mV	52.64V	0.510uA	458.6mV	53.61V	0.566uA
60	459.2mV	52.53V	0.488uA	457.5mV	53.21V	0.554uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	455.1mV	52.83V	0.494uA	463.8mV	52.84V	0.567uA
62	463.2mV	53.09V	0.580uA	466.9mV	52.60V	0.570uA
63	467.1mV	52.91V	0.487uA	459.6mV	53.60V	0.567uA
64	460.7mV	53.54V	0.512uA	460.5mV	53.34V	0.513uA
65	461.1mV	53.46V	0.496uA	460.4mV	52.66V	0.559uA
66	460.9mV	53.23V	0.500uA	466.4mV	52.55V	0.515uA
67	462.4mV	53.20V	0.590uA	467.0mV	52.76V	0.501uA
68	457.9mV	53.48V	0.503uA	460.2mV	53.45V	0.528uA
69	463.5mV	52.75V	0.481uA	461.9mV	53.24V	0.545uA
70	456.8mV	53.12V	0.520uA	466.5mV	52.79V	0.531uA
71	466.8mV	53.15V	0.588uA	461.2mV	52.61V	0.558uA
72	457.3mV	53.30V	0.516uA	465.0mV	53.12V	0.559uA
73	464.5mV	52.66V	0.564uA	456.0mV	52.78V	0.489uA
74	466.1mV	52.98V	0.547uA	464.0mV	52.98V	0.567uA
75	457.3mV	52.79V	0.570uA	464.5mV	52.52V	0.535uA
76	461.1mV	53.25V	0.526uA	461.8mV	53.05V	0.525uA
77	466.4mV	52.88V	0.514uA	463.6mV	52.92V	0.552uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	458.4mV	52.95V	0.518uA	463.4mV	52.75V	0.509uA
2	463.7mV	52.86V	0.502uA	464.2mV	53.37V	0.512uA
3	458.9mV	53.46V	0.506uA	461.5mV	53.07V	0.580uA
4	467.4mV	53.19V	0.569uA	465.9mV	53.31V	0.493uA
5	462.1mV	53.17V	0.575uA	467.3mV	53.03V	0.520uA
6	462.5mV	52.75V	0.487uA	455.5mV	53.43V	0.489uA
7	460.2mV	52.55V	0.566uA	461.3mV	53.03V	0.516uA
8	457.3mV	53.41V	0.527uA	457.1mV	52.65V	0.488uA
9	456.9mV	52.99V	0.482uA	459.2mV	53.42V	0.483uA
10	465.0mV	53.05V	0.546uA	457.6mV	53.57V	0.523uA
11	457.5mV	52.76V	0.536uA	466.0mV	52.94V	0.576uA
12	456.9mV	53.00V	0.555uA	461.2mV	53.62V	0.518uA
13	458.9mV	52.50V	0.518uA	455.3mV	52.71V	0.499uA
14	459.3mV	53.68V	0.495uA	462.8mV	52.92V	0.587uA
15	455.8mV	52.56V	0.514uA	460.4mV	52.81V	0.500uA
16	455.4mV	53.36V	0.566uA	456.7mV	53.22V	0.554uA
17	460.7mV	52.59V	0.528uA	464.5mV	52.68V	0.566uA
18	456.3mV	53.19V	0.488uA	460.9mV	52.54V	0.521uA
19	460.8mV	53.37V	0.583uA	463.8mV	52.67V	0.531uA
20	462.9mV	52.72V	0.513uA	458.6mV	53.22V	0.503uA
21	457.2mV	52.75V	0.500uA	462.1mV	52.50V	0.502uA
22	467.3mV	52.91V	0.490uA	458.2mV	53.19V	0.564uA
23	458.8mV	52.75V	0.531uA	459.1mV	52.62V	0.563uA
24	462.2mV	52.91V	0.574uA	455.6mV	52.71V	0.497uA
25	455.6mV	53.17V	0.491uA	459.3mV	52.53V	0.587uA
26	463.8mV	52.91V	0.537uA	464.5mV	53.62V	0.484uA
27	456.7mV	53.56V	0.555uA	467.0mV	53.22V	0.494uA
28	465.7mV	52.91V	0.549uA	464.8mV	53.32V	0.486uA
29	460.2mV	52.98V	0.556uA	457.9mV	52.84V	0.498uA
30	457.3mV	52.81V	0.584uA	465.0mV	53.18V	0.526uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	463.6mV	52.71V	0.482uA	456.0mV	52.48V	0.583uA
32	462.5mV	53.48V	0.519uA	464.2mV	52.94V	0.550uA
33	457.9mV	52.93V	0.502uA	466.7mV	52.60V	0.563uA
34	456.7mV	53.39V	0.572uA	460.0mV	52.92V	0.570uA
35	459.8mV	53.48V	0.495uA	460.4mV	53.07V	0.492uA
36	463.1mV	53.58V	0.590uA	467.4mV	52.66V	0.533uA
37	467.2mV	52.62V	0.528uA	465.3mV	53.17V	0.569uA
38	464.9mV	53.09V	0.485uA	458.9mV	52.90V	0.579uA
39	457.1mV	53.46V	0.570uA	459.8mV	53.69V	0.499uA
40	463.0mV	53.24V	0.582uA	464.2mV	53.48V	0.564uA
41	455.2mV	53.00V	0.570uA	459.4mV	52.95V	0.582uA
42	458.1mV	53.02V	0.494uA	459.3mV	53.09V	0.525uA
43	458.5mV	53.32V	0.534uA	458.0mV	52.77V	0.528uA
44	455.4mV	53.43V	0.555uA	463.7mV	52.87V	0.512uA
45	462.2mV	52.55V	0.521uA	461.9mV	53.47V	0.587uA
46	459.0mV	53.40V	0.527uA	467.2mV	52.72V	0.588uA
47	463.0mV	52.95V	0.509uA	466.8mV	53.28V	0.555uA
48	457.4mV	52.83V	0.515uA	457.4mV	53.10V	0.579uA
49	463.1mV	53.32V	0.489uA	465.0mV	53.55V	0.583uA
50	463.6mV	53.27V	0.564uA	464.7mV	52.57V	0.539uA
51	459.0mV	52.48V	0.531uA	457.4mV	53.19V	0.514uA
52	456.4mV	52.96V	0.541uA	463.4mV	52.53V	0.493uA
53	459.8mV	52.47V	0.562uA	462.5mV	53.52V	0.582uA
54	458.1mV	53.51V	0.490uA	463.4mV	53.03V	0.511uA
55	460.3mV	53.69V	0.485uA	463.1mV	52.52V	0.498uA
56	461.2mV	53.31V	0.506uA	455.2mV	52.62V	0.571uA
57	457.5mV	52.90V	0.569uA	457.9mV	53.34V	0.581uA
58	464.3mV	53.63V	0.587uA	458.2mV	53.67V	0.560uA
59	455.1mV	52.51V	0.546uA	462.5mV	52.80V	0.486uA
60	465.9mV	53.50V	0.518uA	458.6mV	53.12V	0.586uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.05.11 ~ 2014.06.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	464.6mV	53.04V	0.515uA	458.0mV	53.08V	0.511uA
62	456.7mV	53.70V	0.503uA	465.1mV	53.17V	0.565uA
63	460.7mV	53.32V	0.556uA	458.2mV	53.39V	0.505uA
64	461.9mV	52.98V	0.495uA	463.0mV	53.46V	0.496uA
65	463.3mV	52.83V	0.484uA	460.7mV	52.52V	0.589uA
66	457.1mV	52.65V	0.488uA	462.2mV	53.21V	0.581uA
67	459.7mV	53.39V	0.589uA	466.0mV	53.67V	0.513uA
68	462.5mV	52.96V	0.548uA	462.3mV	52.83V	0.574uA
69	456.7mV	52.85V	0.540uA	463.5mV	52.71V	0.496uA
70	462.9mV	53.63V	0.514uA	462.7mV	53.17V	0.491uA
71	462.4mV	53.45V	0.533uA	459.1mV	53.63V	0.543uA
72	459.7mV	53.55V	0.577uA	460.2mV	52.68V	0.569uA
73	460.7mV	53.60V	0.516uA	456.9mV	52.89V	0.531uA
74	462.1mV	53.20V	0.495uA	461.2mV	52.66V	0.539uA
75	456.4mV	52.81V	0.495uA	464.2mV	52.91V	0.551uA
76	455.6mV	52.90V	0.588uA	461.4mV	53.39V	0.548uA
77	467.4mV	52.52V	0.555uA	462.8mV	53.12V	0.527uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T140630-039
Part No : BAT54ST
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=100mA, VB>30V@I=10uA, IR<2uA@VR=25V
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2014.06.28 ~ 2014.06.28
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	458.8mV	53.34V	0.486uA	460.3mV	53.67V	0.522uA
2	456.0mV	52.69V	0.496uA	460.5mV	52.90V	0.514uA
3	456.4mV	52.77V	0.560uA	461.3mV	53.69V	0.520uA
4	461.7mV	52.80V	0.545uA	456.4mV	52.75V	0.585uA
5	464.4mV	52.77V	0.521uA	460.5mV	53.26V	0.538uA
6	458.7mV	52.69V	0.542uA	465.2mV	53.31V	0.518uA
7	457.8mV	53.21V	0.484uA	458.5mV	53.04V	0.511uA
8	465.0mV	53.27V	0.572uA	461.3mV	53.49V	0.500uA
9	457.6mV	53.32V	0.579uA	461.8mV	52.84V	0.544uA
10	461.9mV	52.94V	0.516uA	459.2mV	53.25V	0.481uA

Made By: Leo Hsia

Approval: Peter Yang