www.SeCosGmbH.com

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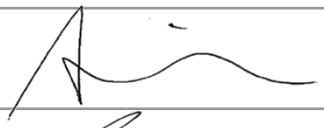
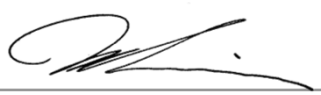
Product/Process Change Notification

PCN#	Effective Date	Issue Date
2018-10-24C-01	2019/1/24	2018/10/24
PCN Classification	Product Category	
Major	MOSFET	
Subject		
Process Optimization		
Affected Product(s)		
SCG3139K-C		
Description of Change(s)		
In order to enhance the effectiveness of the product, wafer size change from 6-inch to 8-inch.		
Content of Change(s)		
Wafer size		
Impact(s)		
N/A		
Attachment(s)		
Specification. Reliability Test Report.		

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

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

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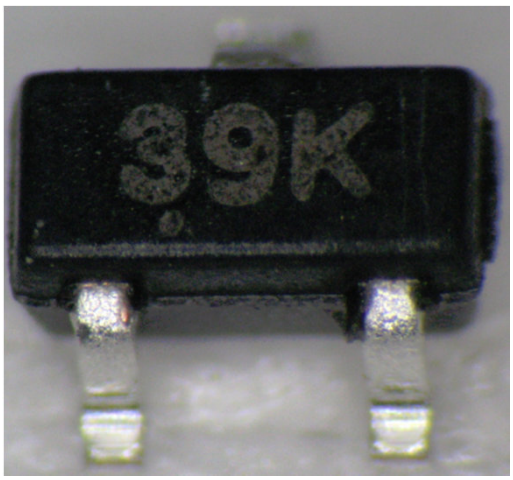
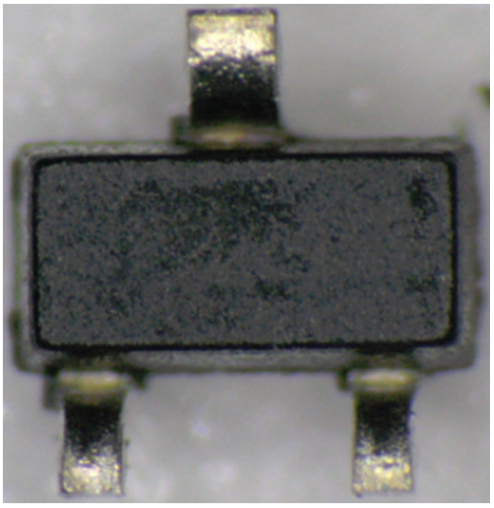
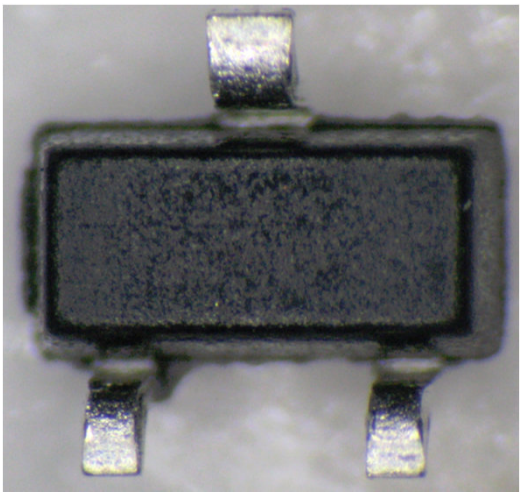
Exterior comparison Chart	
Original	New
 Top View	 Top View
 Back View	 Back View

Elektronische Bauelemente

SCG3139K-C

-0.5A, -20V, $R_{DS(ON)}$ 0.9Ω

P-Channel Enhancement Mode Power MOSFET

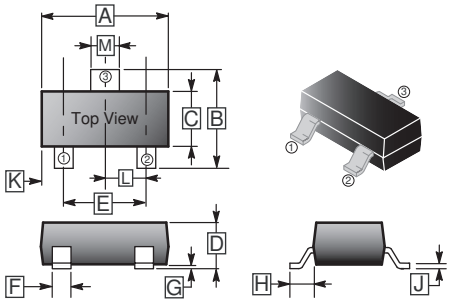
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low On-Resistance
- Fast Switching Speed
- Drive Circuits can be Simple
- Parallel Use is Easy
- Low Voltage Drive Makes This Device Ideal for Portable Equipment
- Reliable and Rugged
- Green Device Available
- ESD Protection

SOT-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.5	1.7	G	-	0.1
B	1.45	1.75	H	0.55 REF.	
C	0.7	0.9	J	0.1	0.2
D	0.7	0.9	K	-	
E	0.9	1.1	L	0.5 TYP.	
F	0.15	0.35	M	0.25	0.35

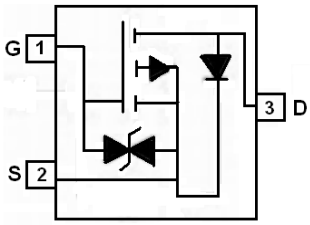
APPLICATION

- Interfacing
- Switching

MARKING

39K

Top View



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-523	3K	7 inch

ORDER INFORMATION

Part Number	Type
SCG3139K-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter		Symbol	Ratings	Unit
Drain-Source Voltage		V_{DS}	-20	V
Gate-Source Voltage		V_{GS}	±8	V
Continuous Drain Current [1] V_{GS}@ -4.5V	T_A=25℃	I_D	-0.5	A
	T_A=70℃		-0.4	
Pulsed Drain Current [3]		I_{DM}	-1.5	A
Total Power Dissipation		P_D	280	mW
Operating Junction & Storage Temperature Range		T_J, T_{STG}	-55~150	℃
Thermal Resistance Ratings				
Thermal Resistance Junction-ambient [1]		$R_{\theta JA}$	450	℃/W
Thermal Resistance Junction-ambient [2]			735	

ELECTRICAL CHARACTERISTICS (T_J=25℃ unless otherwise specified)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Drain-Source Breakdown Voltage		BV_{DSS}	-20	-	-	V	V_{GS}=0, I_D= -250μA
Gate Threshold Voltage		$V_{GS(th)}$	-0.5	-	-1.2	V	V_{DS}= V_{GS}, I_D= -250μA
Gate-Source Leakage Current		I_{GSS}	-	-	±10	μA	V_{GS}= ±8V
Drain-Source Leakage Current	T_J=25℃	I_{DSS}	-	-	-1	μA	V_{DS}= -20V, V_{GS}=0
	T_J=55℃	I_{DSS}	-	-	-10		
Static Drain-Source On-Resistance [4]		$R_{DS(ON)}$	-	-	0.9	Ω	V_{GS}= -4.5V, I_D= -500mA
			-	-	1.4		V_{GS}= -2.5V, I_D= -300mA
			-	-	2.7		V_{GS}= -1.8V, I_D= -150mA
Total Gate Charge		Q_g	-	1.5	-	nC	I_{DS}= -0.25A V_{DS}= -10V V_{GS}= -4.5V
Gate-Source Charge		Q_{gs}	-	0.28	-		
Gate-Drain (“Miller”) Charge		Q_{gd}	-	0.44	-		
Turn-on Delay Time		$T_{d(on)}$	-	30.6	-	nS	V_{DD}= -10V I_{DS}= -0.2A V_{GS}= -4.5V R_{GEN}=10Ω
Rise Time		T_r	-	48.4	-		
Turn-off Delay Time		$T_{d(off)}$	-	13.5	-		
Fall Time		T_f	-	14.4	-		
Input Capacitance		C_{iss}	-	46	-	pF	V_{DS}= -10V V_{GS}=0 f=1MHz
Output Capacitance		C_{oss}	-	27	-		
Reverse Transfer Capacitance		C_{rss}	-	17	-		
Source-Drain Diode							
Continuous Source Current [1]		I_S	-	-	-0.5	A	
Pulsed Source Current [3]		I_{SM}	-	-	-1.5		
Diode Forward Voltage [4]		V_{SD}	-	-	-1.2	V	I_S= -150mA, V_{GS}=0

Notes:
1. Surface mounted on a 1 inch^2 FR-4 board with 2OZ copper, t≦5 sec.
2. Surface mounted on FR4 board.
3. Pulse width limited by maximum junction temperature, Pw≤10μs, Duty cycle≤2%.
4. The data tested by pulsed, pulse width≦300μs , duty cycle≦2%.

Elektronische Bauelemente

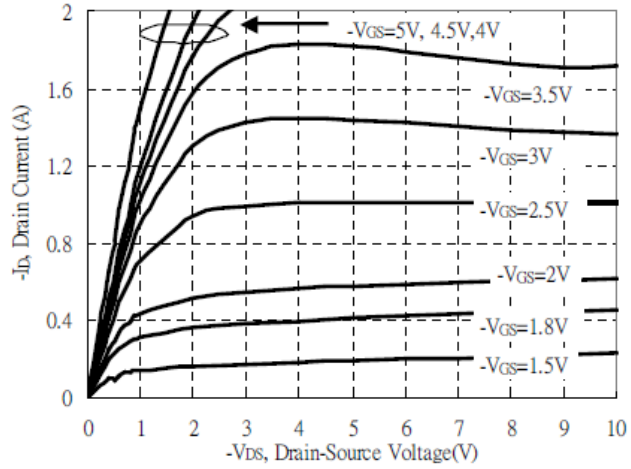
SCG3139K-C

-0.5A, -20V, $R_{DS(ON)}$ 0.9Ω

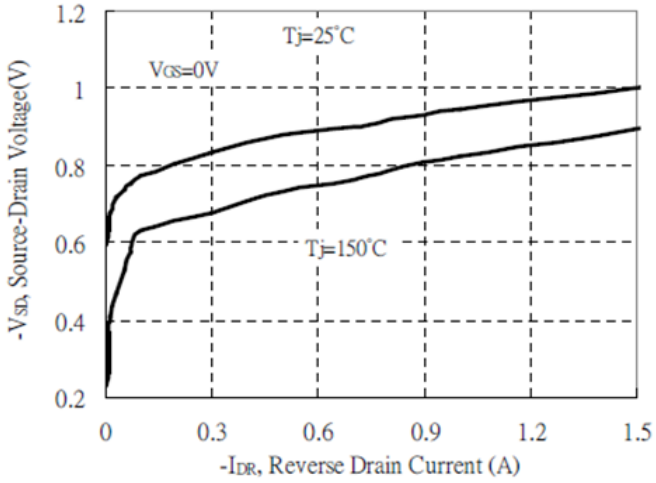
P-Channel Enhancement Mode Power MOSFET

CHARACTERISTICS CURVE

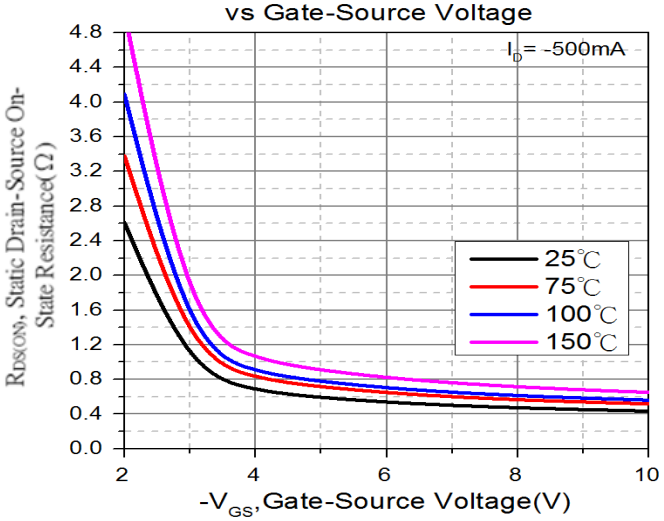
Typical Output Characteristics



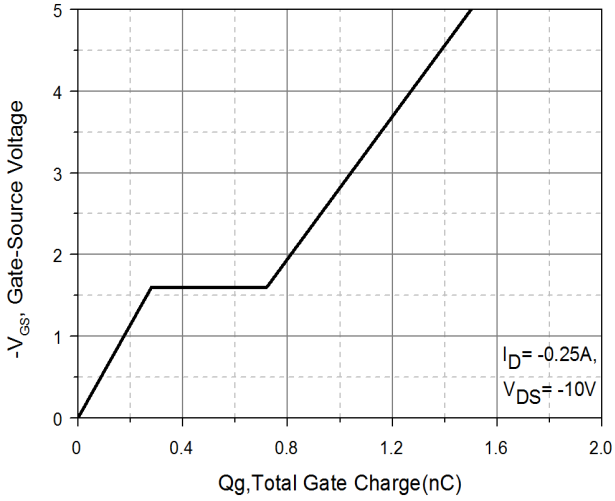
Reverse Drain Current vs Source-Drain Voltage



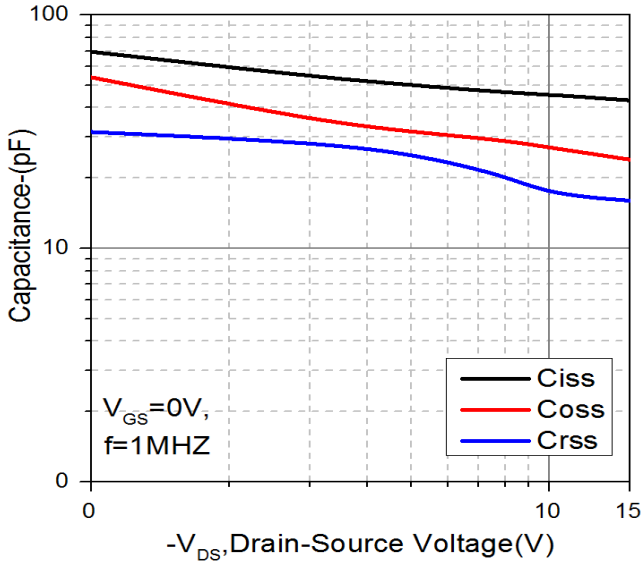
Static Drain-Source On-State Resistance vs Gate-Source Voltage



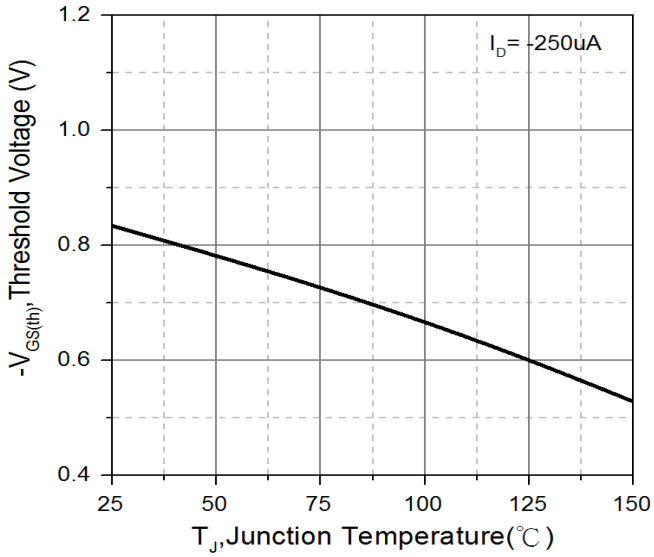
Gate Charge Characteristics



Capacitance vs Drain-to-Source Voltage



Threshold Voltage vs Junction Tempearture



SeCoS Corporation

Reliability Testing Summary Report

Date: 2018/10/23 Document No.: SL18 -10-3139K

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	SCG3139K-C	150 ± 5℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	SCG3139K-C	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	SCG3139K-C	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	SCG3139K-C	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	SCG3139K-C	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	SCG3139K-C	85 ± 2℃, RH=85±5%, 80%VR, 1000 hrs		77	0	0	ACC
Solderability	SCG3139K-C	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: 2018.08.27 Testing End Date: 2018.10.23

Tester: King Huang Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 25℃
Test Date: 2018.08.27
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.76V	-0.0007uA	636.5mΩ
2	-25.71V	-0.0009uA	639.0mΩ
3	-25.64V	-0.0008uA	614.3mΩ
4	-25.65V	-0.0008uA	631.6mΩ
5	-25.64V	-0.0007uA	630.4mΩ
6	-25.74V	-0.0008uA	619.8mΩ
7	-25.64V	-0.0007uA	611.2mΩ
8	-25.69V	-0.0008uA	644.0mΩ
9	-25.72V	-0.0008uA	620.9mΩ
10	-25.72V	-0.0008uA	619.9mΩ
11	-25.69V	-0.0007uA	633.1mΩ
12	-25.62V	-0.0009uA	608.3mΩ
13	-25.60V	-0.0007uA	611.7mΩ
13	-25.68V	-0.0007uA	610.6mΩ
15	-25.70V	-0.0007uA	639.9mΩ
16	-25.61V	-0.0009uA	622.1mΩ
17	-25.71V	-0.0009uA	615.7mΩ
18	-25.62V	-0.0009uA	623.5mΩ
19	-25.70V	-0.0008uA	607.6mΩ
20	-25.74V	-0.0008uA	627.8mΩ
21	-25.61V	-0.0009uA	624.2mΩ
22	-25.74V	-0.0009uA	644.2mΩ
23	-25.60V	-0.0009uA	629.7mΩ
24	-25.69V	-0.0008uA	635.0mΩ
25	-25.70V	-0.0008uA	609.8mΩ
26	-25.64V	-0.0008uA	637.0mΩ
27	-25.64V	-0.0007uA	628.2mΩ
28	-25.74V	-0.0008uA	629.2mΩ
29	-25.64V	-0.0009uA	622.8mΩ
30	-25.63V	-0.0009uA	644.8mΩ

SeCoS Corporation

Electrical Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 25℃
Test Date: 2018.08.27
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
31	-25.76V	-0.0007uA	612.8mΩ
32	-25.60V	-0.0007uA	605.8mΩ
33	-25.74V	-0.0007uA	608.3mΩ
34	-25.59V	-0.0007uA	614.6mΩ
35	-25.77V	-0.0008uA	610.7mΩ
36	-25.73V	-0.0009uA	631.9mΩ
37	-25.76V	-0.0008uA	619.1mΩ
38	-25.69V	-0.0007uA	640.0mΩ
39	-25.72V	-0.0007uA	632.3mΩ
40	-25.65V	-0.0008uA	611.0mΩ
41	-25.60V	-0.0008uA	635.8mΩ
42	-25.59V	-0.0008uA	642.8mΩ
43	-25.75V	-0.0009uA	621.2mΩ
44	-25.75V	-0.0008uA	610.1mΩ
45	-25.68V	-0.0007uA	614.9mΩ
46	-25.58V	-0.0008uA	642.4mΩ
47	-25.62V	-0.0009uA	611.5mΩ
48	-25.58V	-0.0008uA	631.9mΩ
49	-25.66V	-0.0008uA	631.6mΩ
50	-25.60V	-0.0008uA	616.8mΩ
51	-25.58V	-0.0007uA	615.7mΩ
52	-25.70V	-0.0008uA	628.0mΩ
53	-25.76V	-0.0008uA	616.0mΩ
54	-25.64V	-0.0007uA	645.6mΩ
55	-25.68V	-0.0009uA	629.2mΩ
56	-25.68V	-0.0009uA	611.0mΩ
57	-25.64V	-0.0008uA	613.0mΩ
58	-25.62V	-0.0008uA	642.2mΩ
59	-25.71V	-0.0007uA	639.7mΩ
60	-25.62V	-0.0008uA	623.7mΩ

SeCoS Corporation

Electrical Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 25℃
Test Date: 2018.08.27
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
61	-25.61V	-0.0009uA	642.3mΩ
62	-25.64V	-0.0008uA	615.5mΩ
63	-25.66V	-0.0009uA	624.6mΩ
64	-25.76V	-0.0009uA	609.0mΩ
65	-25.73V	-0.0008uA	638.9mΩ
66	-25.74V	-0.0008uA	634.8mΩ
67	-25.60V	-0.0009uA	644.2mΩ
68	-25.64V	-0.0008uA	613.0mΩ
69	-25.73V	-0.0008uA	613.9mΩ
70	-25.74V	-0.0009uA	610.4mΩ
71	-25.63V	-0.0009uA	605.4mΩ
72	-25.71V	-0.0009uA	620.7mΩ
73	-25.73V	-0.0008uA	624.6mΩ
74	-25.77V	-0.0008uA	616.5mΩ
75	-25.77V	-0.0008uA	617.0mΩ
76	-25.76V	-0.0007uA	632.7mΩ
77	-25.59V	-0.0008uA	618.6mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.63V	-0.0008uA	638.4mΩ	-25.58V	-0.0008uA	620.9mΩ
2	-25.74V	-0.0009uA	626.6mΩ	-25.75V	-0.0007uA	638.2mΩ
3	-25.65V	-0.0008uA	611.1mΩ	-25.68V	-0.0007uA	630.5mΩ
4	-25.68V	-0.0009uA	619.3mΩ	-25.72V	-0.0008uA	636.8mΩ
5	-25.73V	-0.0009uA	606.7mΩ	-25.62V	-0.0008uA	632.4mΩ
6	-25.58V	-0.0008uA	645.2mΩ	-25.69V	-0.0007uA	624.3mΩ
7	-25.66V	-0.0009uA	620.6mΩ	-25.74V	-0.0008uA	609.0mΩ
8	-25.72V	-0.0008uA	624.6mΩ	-25.71V	-0.0008uA	610.1mΩ
9	-25.65V	-0.0008uA	640.3mΩ	-25.67V	-0.0007uA	645.5mΩ
10	-25.63V	-0.0008uA	606.2mΩ	-25.70V	-0.0008uA	605.7mΩ
11	-25.78V	-0.0007uA	629.3mΩ	-25.63V	-0.0009uA	619.7mΩ
12	-25.74V	-0.0008uA	618.7mΩ	-25.74V	-0.0007uA	639.6mΩ
13	-25.69V	-0.0008uA	610.5mΩ	-25.70V	-0.0008uA	610.6mΩ
13	-25.74V	-0.0007uA	617.7mΩ	-25.69V	-0.0008uA	631.8mΩ
15	-25.62V	-0.0008uA	616.7mΩ	-25.65V	-0.0008uA	621.3mΩ
16	-25.75V	-0.0008uA	629.7mΩ	-25.73V	-0.0009uA	637.6mΩ
17	-25.62V	-0.0008uA	626.4mΩ	-25.59V	-0.0008uA	624.3mΩ
18	-25.75V	-0.0008uA	631.8mΩ	-25.64V	-0.0008uA	635.0mΩ
19	-25.74V	-0.0008uA	627.1mΩ	-25.67V	-0.0009uA	614.9mΩ
20	-25.69V	-0.0008uA	620.0mΩ	-25.61V	-0.0008uA	638.1mΩ
21	-25.69V	-0.0009uA	620.8mΩ	-25.71V	-0.0007uA	631.6mΩ
22	-25.62V	-0.0008uA	619.4mΩ	-25.59V	-0.0008uA	641.2mΩ
23	-25.73V	-0.0009uA	605.4mΩ	-25.62V	-0.0009uA	611.5mΩ
24	-25.73V	-0.0008uA	622.5mΩ	-25.66V	-0.0009uA	610.8mΩ
25	-25.61V	-0.0007uA	644.6mΩ	-25.77V	-0.0007uA	626.8mΩ
26	-25.65V	-0.0009uA	619.9mΩ	-25.70V	-0.0009uA	625.5mΩ
27	-25.62V	-0.0008uA	623.3mΩ	-25.75V	-0.0009uA	606.1mΩ
28	-25.61V	-0.0008uA	621.0mΩ	-25.75V	-0.0008uA	626.5mΩ
29	-25.61V	-0.0008uA	619.6mΩ	-25.71V	-0.0008uA	609.5mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.70V	-0.0009uA	612.6mΩ	-25.78V	-0.0008uA	609.6mΩ
31	-25.62V	-0.0008uA	637.9mΩ	-25.77V	-0.0008uA	605.3mΩ
32	-25.66V	-0.0007uA	619.2mΩ	-25.74V	-0.0008uA	644.3mΩ
33	-25.77V	-0.0009uA	625.9mΩ	-25.74V	-0.0009uA	641.4mΩ
34	-25.64V	-0.0009uA	641.2mΩ	-25.58V	-0.0008uA	611.1mΩ
35	-25.68V	-0.0008uA	620.4mΩ	-25.77V	-0.0009uA	613.1mΩ
36	-25.78V	-0.0007uA	617.1mΩ	-25.78V	-0.0007uA	628.3mΩ
37	-25.60V	-0.0007uA	618.4mΩ	-25.66V	-0.0008uA	622.0mΩ
38	-25.74V	-0.0008uA	627.4mΩ	-25.61V	-0.0009uA	627.9mΩ
39	-25.76V	-0.0007uA	611.7mΩ	-25.71V	-0.0008uA	605.1mΩ
40	-25.73V	-0.0008uA	639.4mΩ	-25.72V	-0.0008uA	614.8mΩ
41	-25.65V	-0.0009uA	637.5mΩ	-25.66V	-0.0007uA	632.8mΩ
42	-25.73V	-0.0007uA	626.3mΩ	-25.74V	-0.0008uA	605.7mΩ
43	-25.61V	-0.0008uA	628.4mΩ	-25.65V	-0.0008uA	642.1mΩ
44	-25.74V	-0.0009uA	644.4mΩ	-25.64V	-0.0009uA	629.8mΩ
45	-25.73V	-0.0008uA	638.3mΩ	-25.70V	-0.0009uA	606.8mΩ
46	-25.71V	-0.0008uA	609.4mΩ	-25.60V	-0.0007uA	628.7mΩ
47	-25.76V	-0.0009uA	630.6mΩ	-25.75V	-0.0008uA	605.7mΩ
48	-25.67V	-0.0008uA	636.4mΩ	-25.77V	-0.0008uA	630.7mΩ
49	-25.63V	-0.0008uA	616.5mΩ	-25.77V	-0.0007uA	612.1mΩ
50	-25.71V	-0.0007uA	625.6mΩ	-25.71V	-0.0008uA	621.0mΩ
51	-25.78V	-0.0009uA	615.9mΩ	-25.65V	-0.0008uA	625.4mΩ
52	-25.73V	-0.0007uA	635.9mΩ	-25.75V	-0.0009uA	640.4mΩ
53	-25.69V	-0.0008uA	635.4mΩ	-25.67V	-0.0008uA	629.4mΩ
54	-25.68V	-0.0008uA	622.1mΩ	-25.72V	-0.0007uA	627.5mΩ
55	-25.74V	-0.0008uA	628.9mΩ	-25.63V	-0.0008uA	623.8mΩ
56	-25.78V	-0.0008uA	626.1mΩ	-25.59V	-0.0007uA	641.9mΩ
57	-25.60V	-0.0008uA	636.9mΩ	-25.75V	-0.0009uA	644.7mΩ
58	-25.69V	-0.0008uA	607.3mΩ	-25.71V	-0.0008uA	641.2mΩ

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.63V	-0.0009uA	643.3mΩ	-25.71V	-0.0007uA	640.1mΩ
60	-25.71V	-0.0008uA	624.6mΩ	-25.74V	-0.0008uA	617.6mΩ
61	-25.74V	-0.0008uA	636.8mΩ	-25.66V	-0.0008uA	612.1mΩ
62	-25.66V	-0.0008uA	636.0mΩ	-25.72V	-0.0008uA	618.0mΩ
63	-25.72V	-0.0008uA	629.6mΩ	-25.71V	-0.0008uA	619.1mΩ
64	-25.60V	-0.0007uA	640.7mΩ	-25.67V	-0.0007uA	631.6mΩ
65	-25.60V	-0.0007uA	629.9mΩ	-25.69V	-0.0008uA	621.7mΩ
66	-25.61V	-0.0008uA	645.3mΩ	-25.59V	-0.0009uA	644.9mΩ
67	-25.65V	-0.0009uA	627.5mΩ	-25.78V	-0.0009uA	618.6mΩ
68	-25.68V	-0.0009uA	622.9mΩ	-25.71V	-0.0008uA	610.6mΩ
69	-25.64V	-0.0009uA	606.2mΩ	-25.75V	-0.0008uA	628.3mΩ
70	-25.64V	-0.0008uA	635.5mΩ	-25.65V	-0.0009uA	608.4mΩ
71	-25.61V	-0.0007uA	608.0mΩ	-25.64V	-0.0008uA	616.1mΩ
72	-25.64V	-0.0008uA	637.6mΩ	-25.73V	-0.0007uA	624.3mΩ
73	-25.77V	-0.0007uA	642.0mΩ	-25.69V	-0.0009uA	620.0mΩ
74	-25.70V	-0.0009uA	609.2mΩ	-25.74V	-0.0008uA	618.6mΩ
75	-25.64V	-0.0007uA	618.1mΩ	-25.62V	-0.0007uA	627.5mΩ
76	-25.59V	-0.0007uA	615.6mΩ	-25.71V	-0.0009uA	631.3mΩ
77	-25.68V	-0.0007uA	616.0mΩ	-25.69V	-0.0008uA	614.2mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150℃, 1000Hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.68V	-0.0009uA	624.2mΩ	-25.64V	-0.0009uA	630.4mΩ
2	-25.70V	-0.0008uA	620.5mΩ	-25.73V	-0.0007uA	605.1mΩ
3	-25.63V	-0.0009uA	614.3mΩ	-25.73V	-0.0008uA	628.4mΩ
4	-25.59V	-0.0009uA	644.9mΩ	-25.69V	-0.0007uA	608.6mΩ
5	-25.65V	-0.0007uA	626.4mΩ	-25.59V	-0.0007uA	644.4mΩ
6	-25.67V	-0.0009uA	634.6mΩ	-25.63V	-0.0007uA	633.8mΩ
7	-25.61V	-0.0009uA	606.6mΩ	-25.60V	-0.0007uA	623.0mΩ
8	-25.69V	-0.0008uA	632.6mΩ	-25.73V	-0.0009uA	611.8mΩ
9	-25.64V	-0.0007uA	641.9mΩ	-25.66V	-0.0008uA	612.6mΩ
10	-25.69V	-0.0009uA	631.3mΩ	-25.60V	-0.0007uA	633.1mΩ
11	-25.72V	-0.0008uA	636.8mΩ	-25.71V	-0.0009uA	615.3mΩ
12	-25.78V	-0.0007uA	643.9mΩ	-25.68V	-0.0008uA	644.7mΩ
13	-25.74V	-0.0009uA	641.1mΩ	-25.77V	-0.0009uA	637.1mΩ
13	-25.75V	-0.0009uA	631.9mΩ	-25.72V	-0.0007uA	611.2mΩ
15	-25.68V	-0.0009uA	606.2mΩ	-25.66V	-0.0009uA	629.5mΩ
16	-25.76V	-0.0008uA	610.4mΩ	-25.58V	-0.0009uA	613.4mΩ
17	-25.70V	-0.0008uA	617.9mΩ	-25.67V	-0.0008uA	626.6mΩ
18	-25.61V	-0.0009uA	638.0mΩ	-25.64V	-0.0008uA	615.5mΩ
19	-25.61V	-0.0009uA	623.9mΩ	-25.61V	-0.0009uA	628.9mΩ
20	-25.75V	-0.0008uA	615.4mΩ	-25.69V	-0.0008uA	637.3mΩ
21	-25.76V	-0.0008uA	626.8mΩ	-25.65V	-0.0008uA	607.3mΩ
22	-25.74V	-0.0008uA	610.9mΩ	-25.77V	-0.0008uA	609.1mΩ
23	-25.62V	-0.0008uA	618.7mΩ	-25.74V	-0.0008uA	626.3mΩ
24	-25.63V	-0.0009uA	639.7mΩ	-25.69V	-0.0008uA	611.6mΩ
25	-25.64V	-0.0008uA	638.5mΩ	-25.69V	-0.0009uA	611.3mΩ
26	-25.67V	-0.0009uA	642.6mΩ	-25.64V	-0.0008uA	607.9mΩ
27	-25.64V	-0.0009uA	607.8mΩ	-25.76V	-0.0008uA	638.7mΩ
28	-25.61V	-0.0008uA	612.6mΩ	-25.75V	-0.0009uA	609.4mΩ
29	-25.66V	-0.0009uA	624.4mΩ	-25.77V	-0.0008uA	611.0mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150℃, 1000Hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.65V	-0.0009uA	629.6mΩ	-25.78V	-0.0009uA	637.9mΩ
31	-25.72V	-0.0008uA	623.7mΩ	-25.73V	-0.0007uA	635.7mΩ
32	-25.59V	-0.0008uA	635.2mΩ	-25.59V	-0.0008uA	612.1mΩ
33	-25.76V	-0.0009uA	629.5mΩ	-25.67V	-0.0009uA	618.6mΩ
34	-25.67V	-0.0008uA	617.1mΩ	-25.69V	-0.0007uA	625.7mΩ
35	-25.78V	-0.0008uA	610.2mΩ	-25.64V	-0.0009uA	627.3mΩ
36	-25.69V	-0.0008uA	614.7mΩ	-25.69V	-0.0008uA	633.6mΩ
37	-25.67V	-0.0009uA	642.0mΩ	-25.75V	-0.0009uA	634.0mΩ
38	-25.59V	-0.0009uA	631.8mΩ	-25.67V	-0.0008uA	636.2mΩ
39	-25.70V	-0.0009uA	630.2mΩ	-25.65V	-0.0009uA	611.5mΩ
40	-25.64V	-0.0007uA	607.0mΩ	-25.76V	-0.0008uA	631.4mΩ
41	-25.75V	-0.0009uA	616.8mΩ	-25.71V	-0.0007uA	624.7mΩ
42	-25.61V	-0.0008uA	623.5mΩ	-25.73V	-0.0007uA	630.8mΩ
43	-25.65V	-0.0008uA	640.4mΩ	-25.73V	-0.0007uA	607.8mΩ
44	-25.64V	-0.0007uA	620.9mΩ	-25.74V	-0.0009uA	626.3mΩ
45	-25.69V	-0.0009uA	620.6mΩ	-25.63V	-0.0008uA	631.7mΩ
46	-25.65V	-0.0008uA	607.8mΩ	-25.75V	-0.0008uA	632.2mΩ
47	-25.70V	-0.0008uA	613.5mΩ	-25.70V	-0.0009uA	645.4mΩ
48	-25.78V	-0.0009uA	645.3mΩ	-25.72V	-0.0008uA	627.7mΩ
49	-25.75V	-0.0009uA	639.1mΩ	-25.62V	-0.0008uA	624.0mΩ
50	-25.75V	-0.0008uA	643.3mΩ	-25.63V	-0.0008uA	635.3mΩ
51	-25.64V	-0.0007uA	633.9mΩ	-25.75V	-0.0007uA	641.5mΩ
52	-25.61V	-0.0008uA	613.0mΩ	-25.73V	-0.0007uA	623.9mΩ
53	-25.63V	-0.0009uA	614.3mΩ	-25.59V	-0.0007uA	629.8mΩ
54	-25.77V	-0.0008uA	634.5mΩ	-25.72V	-0.0008uA	620.7mΩ
55	-25.72V	-0.0008uA	633.2mΩ	-25.73V	-0.0009uA	639.6mΩ
56	-25.59V	-0.0007uA	619.0mΩ	-25.74V	-0.0009uA	644.7mΩ
57	-25.63V	-0.0008uA	630.1mΩ	-25.63V	-0.0009uA	628.5mΩ
58	-25.75V	-0.0008uA	641.1mΩ	-25.76V	-0.0007uA	607.8mΩ

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 150℃, 1000Hrs
Test Date: 2018.08.27 ~ 2018.10.09
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.58V	-0.0009uA	634.2mΩ	-25.74V	-0.0008uA	617.6mΩ
60	-25.70V	-0.0008uA	625.2mΩ	-25.78V	-0.0008uA	632.0mΩ
61	-25.72V	-0.0009uA	619.6mΩ	-25.59V	-0.0007uA	613.3mΩ
62	-25.65V	-0.0009uA	624.0mΩ	-25.68V	-0.0007uA	627.3mΩ
63	-25.67V	-0.0009uA	620.2mΩ	-25.77V	-0.0008uA	631.8mΩ
64	-25.60V	-0.0009uA	635.6mΩ	-25.72V	-0.0008uA	633.5mΩ
65	-25.76V	-0.0007uA	643.7mΩ	-25.65V	-0.0008uA	620.9mΩ
66	-25.63V	-0.0008uA	641.0mΩ	-25.58V	-0.0008uA	616.8mΩ
67	-25.77V	-0.0008uA	643.5mΩ	-25.71V	-0.0008uA	632.5mΩ
68	-25.69V	-0.0009uA	626.2mΩ	-25.61V	-0.0009uA	632.2mΩ
69	-25.77V	-0.0007uA	609.5mΩ	-25.69V	-0.0009uA	607.7mΩ
70	-25.78V	-0.0008uA	625.3mΩ	-25.58V	-0.0008uA	619.9mΩ
71	-25.64V	-0.0007uA	618.4mΩ	-25.73V	-0.0008uA	637.7mΩ
72	-25.73V	-0.0008uA	621.9mΩ	-25.64V	-0.0009uA	616.7mΩ
73	-25.76V	-0.0008uA	616.0mΩ	-25.60V	-0.0009uA	644.3mΩ
74	-25.59V	-0.0008uA	608.6mΩ	-25.59V	-0.0007uA	623.1mΩ
75	-25.66V	-0.0008uA	638.1mΩ	-25.75V	-0.0008uA	620.4mΩ
76	-25.67V	-0.0008uA	628.1mΩ	-25.60V	-0.0007uA	625.2mΩ
77	-25.75V	-0.0009uA	640.2mΩ	-25.76V	-0.0008uA	628.8mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.08.28 ~ 2018.09.05
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.64V	-0.0008uA	612.5mΩ	-25.71V	-0.0008uA	610.4mΩ
2	-25.59V	-0.0008uA	638.3mΩ	-25.76V	-0.0009uA	626.6mΩ
3	-25.68V	-0.0008uA	630.7mΩ	-25.70V	-0.0008uA	644.2mΩ
4	-25.78V	-0.0008uA	608.5mΩ	-25.69V	-0.0009uA	626.0mΩ
5	-25.77V	-0.0009uA	641.3mΩ	-25.67V	-0.0008uA	630.6mΩ
6	-25.60V	-0.0008uA	641.4mΩ	-25.74V	-0.0008uA	634.8mΩ
7	-25.66V	-0.0008uA	644.6mΩ	-25.64V	-0.0008uA	631.2mΩ
8	-25.63V	-0.0008uA	614.1mΩ	-25.76V	-0.0008uA	608.5mΩ
9	-25.74V	-0.0007uA	638.5mΩ	-25.66V	-0.0007uA	629.5mΩ
10	-25.66V	-0.0009uA	640.1mΩ	-25.60V	-0.0008uA	611.9mΩ
11	-25.61V	-0.0009uA	639.4mΩ	-25.71V	-0.0008uA	615.0mΩ
12	-25.60V	-0.0007uA	629.1mΩ	-25.62V	-0.0009uA	612.2mΩ
13	-25.77V	-0.0008uA	620.2mΩ	-25.63V	-0.0009uA	608.2mΩ
13	-25.59V	-0.0009uA	612.7mΩ	-25.73V	-0.0008uA	638.3mΩ
15	-25.72V	-0.0009uA	620.3mΩ	-25.67V	-0.0008uA	615.5mΩ
16	-25.72V	-0.0009uA	616.9mΩ	-25.59V	-0.0008uA	616.1mΩ
17	-25.61V	-0.0007uA	642.6mΩ	-25.67V	-0.0007uA	606.4mΩ
18	-25.63V	-0.0008uA	615.8mΩ	-25.61V	-0.0008uA	625.9mΩ
19	-25.77V	-0.0008uA	630.8mΩ	-25.65V	-0.0008uA	631.9mΩ
20	-25.70V	-0.0008uA	610.5mΩ	-25.75V	-0.0007uA	616.8mΩ
21	-25.67V	-0.0008uA	607.6mΩ	-25.69V	-0.0008uA	632.1mΩ
22	-25.61V	-0.0009uA	637.7mΩ	-25.71V	-0.0008uA	640.0mΩ
23	-25.59V	-0.0009uA	627.8mΩ	-25.59V	-0.0008uA	645.6mΩ
24	-25.60V	-0.0008uA	606.3mΩ	-25.68V	-0.0007uA	642.7mΩ
25	-25.63V	-0.0009uA	611.3mΩ	-25.73V	-0.0009uA	624.5mΩ
26	-25.75V	-0.0008uA	621.4mΩ	-25.76V	-0.0008uA	612.9mΩ
27	-25.75V	-0.0007uA	621.3mΩ	-25.67V	-0.0008uA	614.4mΩ
28	-25.73V	-0.0008uA	644.3mΩ	-25.59V	-0.0008uA	625.4mΩ
29	-25.75V	-0.0008uA	626.9mΩ	-25.61V	-0.0008uA	607.5mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.08.28 ~ 2018.09.05
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.69V	-0.0008uA	634.2mΩ	-25.69V	-0.0008uA	609.0mΩ
31	-25.72V	-0.0008uA	636.4mΩ	-25.62V	-0.0009uA	625.7mΩ
32	-25.77V	-0.0008uA	636.5mΩ	-25.63V	-0.0008uA	629.1mΩ
33	-25.64V	-0.0009uA	609.2mΩ	-25.63V	-0.0009uA	643.3mΩ
34	-25.73V	-0.0008uA	605.1mΩ	-25.67V	-0.0007uA	609.4mΩ
35	-25.62V	-0.0007uA	621.3mΩ	-25.62V	-0.0007uA	624.9mΩ
36	-25.74V	-0.0007uA	641.8mΩ	-25.77V	-0.0009uA	628.6mΩ
37	-25.77V	-0.0007uA	641.4mΩ	-25.65V	-0.0008uA	644.1mΩ
38	-25.64V	-0.0007uA	644.5mΩ	-25.75V	-0.0008uA	612.7mΩ
39	-25.77V	-0.0008uA	638.1mΩ	-25.63V	-0.0007uA	643.7mΩ
40	-25.68V	-0.0007uA	632.5mΩ	-25.78V	-0.0007uA	609.0mΩ
41	-25.63V	-0.0008uA	639.0mΩ	-25.65V	-0.0008uA	609.3mΩ
42	-25.67V	-0.0008uA	616.1mΩ	-25.75V	-0.0008uA	637.4mΩ
43	-25.71V	-0.0008uA	642.5mΩ	-25.76V	-0.0009uA	639.3mΩ
44	-25.73V	-0.0009uA	613.8mΩ	-25.76V	-0.0009uA	625.1mΩ
45	-25.62V	-0.0008uA	637.5mΩ	-25.63V	-0.0008uA	614.8mΩ
46	-25.62V	-0.0009uA	643.3mΩ	-25.75V	-0.0008uA	618.5mΩ
47	-25.71V	-0.0008uA	622.6mΩ	-25.60V	-0.0007uA	620.0mΩ
48	-25.67V	-0.0008uA	630.4mΩ	-25.65V	-0.0008uA	619.8mΩ
49	-25.62V	-0.0007uA	630.8mΩ	-25.66V	-0.0007uA	624.7mΩ
50	-25.68V	-0.0007uA	639.4mΩ	-25.62V	-0.0008uA	642.3mΩ
51	-25.61V	-0.0009uA	622.3mΩ	-25.73V	-0.0008uA	623.5mΩ
52	-25.73V	-0.0007uA	637.2mΩ	-25.69V	-0.0008uA	617.7mΩ
53	-25.74V	-0.0009uA	634.0mΩ	-25.69V	-0.0008uA	637.9mΩ
54	-25.69V	-0.0007uA	608.4mΩ	-25.65V	-0.0008uA	620.2mΩ
55	-25.60V	-0.0009uA	605.4mΩ	-25.64V	-0.0009uA	631.5mΩ
56	-25.63V	-0.0008uA	635.6mΩ	-25.59V	-0.0008uA	641.8mΩ
57	-25.73V	-0.0008uA	633.4mΩ	-25.70V	-0.0009uA	635.1mΩ
58	-25.61V	-0.0007uA	641.3mΩ	-25.59V	-0.0008uA	639.6mΩ

SeCoS Corporation

Pressure Cooker Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.08.28 ~ 2018.09.05
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.67V	-0.0008uA	612.7mΩ	-25.66V	-0.0008uA	633.3mΩ
60	-25.61V	-0.0007uA	616.8mΩ	-25.75V	-0.0009uA	634.8mΩ
61	-25.63V	-0.0008uA	633.9mΩ	-25.71V	-0.0007uA	621.4mΩ
62	-25.67V	-0.0007uA	626.7mΩ	-25.62V	-0.0007uA	617.9mΩ
63	-25.76V	-0.0008uA	613.9mΩ	-25.71V	-0.0008uA	624.0mΩ
64	-25.67V	-0.0009uA	610.2mΩ	-25.62V	-0.0009uA	626.3mΩ
65	-25.58V	-0.0007uA	608.8mΩ	-25.70V	-0.0008uA	615.5mΩ
66	-25.59V	-0.0008uA	632.9mΩ	-25.61V	-0.0008uA	641.7mΩ
67	-25.70V	-0.0008uA	630.9mΩ	-25.73V	-0.0009uA	635.8mΩ
68	-25.76V	-0.0009uA	629.0mΩ	-25.73V	-0.0007uA	614.5mΩ
69	-25.64V	-0.0007uA	616.4mΩ	-25.66V	-0.0007uA	611.9mΩ
70	-25.71V	-0.0009uA	606.5mΩ	-25.74V	-0.0007uA	639.0mΩ
71	-25.73V	-0.0008uA	628.6mΩ	-25.60V	-0.0008uA	643.8mΩ
72	-25.75V	-0.0007uA	608.6mΩ	-25.66V	-0.0007uA	631.8mΩ
73	-25.66V	-0.0009uA	615.3mΩ	-25.67V	-0.0008uA	605.8mΩ
74	-25.61V	-0.0008uA	631.3mΩ	-25.66V	-0.0009uA	605.9mΩ
75	-25.61V	-0.0008uA	625.3mΩ	-25.59V	-0.0008uA	629.4mΩ
76	-25.65V	-0.0008uA	645.6mΩ	-25.67V	-0.0008uA	631.8mΩ
77	-25.60V	-0.0007uA	644.7mΩ	-25.76V	-0.0009uA	615.9mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.08.28 ~ 2018.10.19
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.59V	-0.0008uA	612.1mΩ	-25.61V	-0.0009uA	643.0mΩ
2	-25.76V	-0.0009uA	617.9mΩ	-25.74V	-0.0007uA	626.5mΩ
3	-25.59V	-0.0008uA	630.5mΩ	-25.75V	-0.0009uA	616.2mΩ
4	-25.61V	-0.0008uA	636.6mΩ	-25.63V	-0.0009uA	627.1mΩ
5	-25.62V	-0.0007uA	615.6mΩ	-25.63V	-0.0008uA	617.8mΩ
6	-25.69V	-0.0008uA	621.0mΩ	-25.66V	-0.0007uA	644.4mΩ
7	-25.64V	-0.0009uA	607.0mΩ	-25.61V	-0.0008uA	634.7mΩ
8	-25.73V	-0.0009uA	621.5mΩ	-25.60V	-0.0008uA	628.3mΩ
9	-25.67V	-0.0009uA	635.7mΩ	-25.76V	-0.0008uA	614.9mΩ
10	-25.65V	-0.0009uA	623.8mΩ	-25.67V	-0.0008uA	637.3mΩ
11	-25.68V	-0.0008uA	617.3mΩ	-25.65V	-0.0008uA	620.2mΩ
12	-25.62V	-0.0008uA	621.9mΩ	-25.69V	-0.0008uA	637.1mΩ
13	-25.58V	-0.0009uA	620.8mΩ	-25.65V	-0.0007uA	637.9mΩ
13	-25.61V	-0.0009uA	607.0mΩ	-25.75V	-0.0009uA	642.2mΩ
15	-25.72V	-0.0008uA	608.2mΩ	-25.60V	-0.0008uA	615.6mΩ
16	-25.71V	-0.0008uA	618.6mΩ	-25.60V	-0.0007uA	626.5mΩ
17	-25.74V	-0.0008uA	613.9mΩ	-25.70V	-0.0009uA	637.3mΩ
18	-25.72V	-0.0008uA	614.9mΩ	-25.73V	-0.0009uA	609.9mΩ
19	-25.64V	-0.0008uA	637.9mΩ	-25.70V	-0.0008uA	634.7mΩ
20	-25.58V	-0.0008uA	632.9mΩ	-25.74V	-0.0008uA	617.9mΩ
21	-25.72V	-0.0007uA	628.9mΩ	-25.76V	-0.0007uA	636.3mΩ
22	-25.71V	-0.0008uA	642.2mΩ	-25.67V	-0.0009uA	645.2mΩ
23	-25.58V	-0.0009uA	643.7mΩ	-25.68V	-0.0008uA	613.8mΩ
24	-25.64V	-0.0008uA	628.5mΩ	-25.59V	-0.0007uA	615.1mΩ
25	-25.74V	-0.0007uA	614.4mΩ	-25.61V	-0.0008uA	644.3mΩ
26	-25.64V	-0.0008uA	624.9mΩ	-25.74V	-0.0008uA	623.7mΩ
27	-25.60V	-0.0009uA	624.9mΩ	-25.63V	-0.0008uA	641.9mΩ
28	-25.78V	-0.0008uA	642.2mΩ	-25.60V	-0.0009uA	612.9mΩ
29	-25.78V	-0.0007uA	632.7mΩ	-25.69V	-0.0009uA	631.9mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.08.28 ~ 2018.10.19
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.61V	-0.0008uA	624.3mΩ	-25.70V	-0.0009uA	621.5mΩ
31	-25.63V	-0.0008uA	611.5mΩ	-25.74V	-0.0008uA	616.5mΩ
32	-25.74V	-0.0007uA	609.1mΩ	-25.68V	-0.0007uA	640.9mΩ
33	-25.72V	-0.0009uA	645.3mΩ	-25.77V	-0.0008uA	620.5mΩ
34	-25.77V	-0.0008uA	626.0mΩ	-25.77V	-0.0009uA	643.8mΩ
35	-25.76V	-0.0008uA	618.1mΩ	-25.59V	-0.0008uA	623.7mΩ
36	-25.65V	-0.0009uA	644.2mΩ	-25.61V	-0.0009uA	643.9mΩ
37	-25.65V	-0.0009uA	611.8mΩ	-25.77V	-0.0008uA	645.0mΩ
38	-25.58V	-0.0008uA	642.4mΩ	-25.67V	-0.0008uA	630.7mΩ
39	-25.71V	-0.0007uA	636.0mΩ	-25.62V	-0.0007uA	644.6mΩ
40	-25.60V	-0.0008uA	611.8mΩ	-25.75V	-0.0009uA	645.8mΩ
41	-25.71V	-0.0007uA	642.8mΩ	-25.67V	-0.0009uA	633.7mΩ
42	-25.65V	-0.0008uA	642.8mΩ	-25.70V	-0.0008uA	623.0mΩ
43	-25.70V	-0.0007uA	608.3mΩ	-25.69V	-0.0009uA	644.4mΩ
44	-25.71V	-0.0008uA	632.4mΩ	-25.65V	-0.0009uA	607.7mΩ
45	-25.63V	-0.0009uA	617.1mΩ	-25.77V	-0.0007uA	636.3mΩ
46	-25.59V	-0.0007uA	616.8mΩ	-25.70V	-0.0008uA	612.4mΩ
47	-25.70V	-0.0007uA	639.2mΩ	-25.70V	-0.0008uA	645.4mΩ
48	-25.71V	-0.0008uA	617.2mΩ	-25.69V	-0.0009uA	608.6mΩ
49	-25.72V	-0.0008uA	616.9mΩ	-25.74V	-0.0007uA	619.1mΩ
50	-25.69V	-0.0009uA	623.0mΩ	-25.62V	-0.0008uA	612.7mΩ
51	-25.68V	-0.0007uA	627.2mΩ	-25.61V	-0.0008uA	618.4mΩ
52	-25.69V	-0.0009uA	620.0mΩ	-25.64V	-0.0008uA	614.1mΩ
53	-25.64V	-0.0008uA	629.0mΩ	-25.62V	-0.0007uA	619.3mΩ
54	-25.76V	-0.0008uA	642.0mΩ	-25.75V	-0.0008uA	630.1mΩ
55	-25.61V	-0.0008uA	619.0mΩ	-25.74V	-0.0009uA	613.4mΩ
56	-25.71V	-0.0008uA	617.4mΩ	-25.58V	-0.0009uA	616.5mΩ
57	-25.73V	-0.0008uA	620.9mΩ	-25.75V	-0.0008uA	629.3mΩ
58	-25.63V	-0.0007uA	626.3mΩ	-25.68V	-0.0009uA	613.8mΩ

SeCoS Corporation

Temperature Cycle Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.08.28 ~ 2018.10.19
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.76V	-0.0008uA	643.5mΩ	-25.60V	-0.0007uA	623.8mΩ
60	-25.63V	-0.0007uA	631.8mΩ	-25.75V	-0.0008uA	621.6mΩ
61	-25.59V	-0.0008uA	630.0mΩ	-25.78V	-0.0008uA	618.4mΩ
62	-25.60V	-0.0007uA	628.5mΩ	-25.71V	-0.0009uA	636.0mΩ
63	-25.68V	-0.0008uA	622.8mΩ	-25.73V	-0.0007uA	614.0mΩ
64	-25.73V	-0.0008uA	609.1mΩ	-25.61V	-0.0009uA	641.8mΩ
65	-25.61V	-0.0008uA	631.1mΩ	-25.71V	-0.0009uA	625.5mΩ
66	-25.60V	-0.0008uA	628.9mΩ	-25.58V	-0.0008uA	607.7mΩ
67	-25.68V	-0.0007uA	611.0mΩ	-25.74V	-0.0009uA	643.8mΩ
68	-25.58V	-0.0008uA	633.7mΩ	-25.75V	-0.0009uA	625.5mΩ
69	-25.78V	-0.0007uA	634.5mΩ	-25.60V	-0.0007uA	627.7mΩ
70	-25.74V	-0.0008uA	630.7mΩ	-25.70V	-0.0008uA	623.1mΩ
71	-25.58V	-0.0007uA	608.2mΩ	-25.75V	-0.0007uA	627.2mΩ
72	-25.64V	-0.0009uA	620.4mΩ	-25.75V	-0.0009uA	643.6mΩ
73	-25.73V	-0.0009uA	630.1mΩ	-25.78V	-0.0007uA	614.2mΩ
74	-25.65V	-0.0008uA	610.4mΩ	-25.58V	-0.0007uA	638.0mΩ
75	-25.61V	-0.0007uA	618.5mΩ	-25.59V	-0.0007uA	626.8mΩ
76	-25.70V	-0.0008uA	609.4mΩ	-25.78V	-0.0009uA	632.1mΩ
77	-25.69V	-0.0007uA	619.0mΩ	-25.64V	-0.0007uA	627.4mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.66V	-0.0009uA	638.3mΩ	-25.76V	-0.0008uA	612.8mΩ
2	-25.62V	-0.0009uA	615.8mΩ	-25.66V	-0.0008uA	610.5mΩ
3	-25.69V	-0.0008uA	631.0mΩ	-25.67V	-0.0007uA	633.2mΩ
4	-25.77V	-0.0008uA	619.7mΩ	-25.67V	-0.0009uA	630.3mΩ
5	-25.71V	-0.0008uA	640.3mΩ	-25.65V	-0.0008uA	626.9mΩ
6	-25.63V	-0.0008uA	643.5mΩ	-25.75V	-0.0009uA	619.8mΩ
7	-25.65V	-0.0008uA	624.3mΩ	-25.59V	-0.0009uA	621.6mΩ
8	-25.71V	-0.0009uA	620.1mΩ	-25.77V	-0.0009uA	627.8mΩ
9	-25.75V	-0.0008uA	628.4mΩ	-25.61V	-0.0007uA	635.8mΩ
10	-25.72V	-0.0008uA	618.0mΩ	-25.60V	-0.0008uA	619.4mΩ
11	-25.65V	-0.0008uA	614.0mΩ	-25.62V	-0.0009uA	637.4mΩ
12	-25.70V	-0.0008uA	618.9mΩ	-25.69V	-0.0008uA	606.3mΩ
13	-25.71V	-0.0008uA	607.2mΩ	-25.78V	-0.0008uA	623.1mΩ
13	-25.65V	-0.0008uA	623.0mΩ	-25.69V	-0.0008uA	630.4mΩ
15	-25.68V	-0.0009uA	626.5mΩ	-25.75V	-0.0008uA	632.6mΩ
16	-25.73V	-0.0008uA	628.5mΩ	-25.71V	-0.0007uA	645.2mΩ
17	-25.70V	-0.0008uA	633.3mΩ	-25.78V	-0.0007uA	622.0mΩ
18	-25.76V	-0.0007uA	627.9mΩ	-25.61V	-0.0007uA	628.4mΩ
19	-25.65V	-0.0009uA	605.0mΩ	-25.65V	-0.0007uA	611.5mΩ
20	-25.63V	-0.0007uA	636.2mΩ	-25.62V	-0.0009uA	640.3mΩ
21	-25.76V	-0.0008uA	626.0mΩ	-25.75V	-0.0007uA	633.7mΩ
22	-25.75V	-0.0007uA	637.4mΩ	-25.68V	-0.0009uA	645.1mΩ
23	-25.66V	-0.0007uA	622.2mΩ	-25.73V	-0.0007uA	610.1mΩ
24	-25.69V	-0.0008uA	630.7mΩ	-25.76V	-0.0008uA	645.7mΩ
25	-25.63V	-0.0007uA	615.0mΩ	-25.70V	-0.0007uA	626.7mΩ
26	-25.76V	-0.0008uA	623.6mΩ	-25.72V	-0.0008uA	606.8mΩ
27	-25.75V	-0.0008uA	639.1mΩ	-25.59V	-0.0008uA	642.4mΩ
28	-25.60V	-0.0009uA	622.9mΩ	-25.74V	-0.0008uA	624.5mΩ
29	-25.68V	-0.0009uA	615.1mΩ	-25.73V	-0.0009uA	613.5mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.65V	-0.0009uA	625.1mΩ	-25.62V	-0.0009uA	613.3mΩ
31	-25.68V	-0.0008uA	637.5mΩ	-25.61V	-0.0007uA	612.2mΩ
32	-25.76V	-0.0009uA	612.6mΩ	-25.60V	-0.0007uA	619.5mΩ
33	-25.68V	-0.0007uA	621.9mΩ	-25.67V	-0.0008uA	620.5mΩ
34	-25.73V	-0.0008uA	635.5mΩ	-25.61V	-0.0008uA	622.9mΩ
35	-25.69V	-0.0008uA	608.2mΩ	-25.58V	-0.0009uA	623.3mΩ
36	-25.72V	-0.0008uA	628.8mΩ	-25.71V	-0.0007uA	619.1mΩ
37	-25.62V	-0.0007uA	639.6mΩ	-25.64V	-0.0009uA	641.1mΩ
38	-25.68V	-0.0007uA	630.1mΩ	-25.63V	-0.0009uA	644.4mΩ
39	-25.60V	-0.0008uA	624.4mΩ	-25.69V	-0.0008uA	618.7mΩ
40	-25.60V	-0.0008uA	620.0mΩ	-25.73V	-0.0008uA	640.6mΩ
41	-25.63V	-0.0007uA	637.1mΩ	-25.59V	-0.0008uA	638.4mΩ
42	-25.60V	-0.0007uA	629.3mΩ	-25.76V	-0.0009uA	605.6mΩ
43	-25.69V	-0.0009uA	613.6mΩ	-25.67V	-0.0007uA	614.3mΩ
44	-25.77V	-0.0008uA	642.0mΩ	-25.63V	-0.0009uA	618.8mΩ
45	-25.60V	-0.0007uA	611.2mΩ	-25.78V	-0.0007uA	635.5mΩ
46	-25.59V	-0.0007uA	630.3mΩ	-25.65V	-0.0009uA	643.8mΩ
47	-25.59V	-0.0009uA	612.7mΩ	-25.70V	-0.0008uA	645.6mΩ
48	-25.66V	-0.0008uA	607.6mΩ	-25.66V	-0.0009uA	625.8mΩ
49	-25.63V	-0.0007uA	632.7mΩ	-25.74V	-0.0009uA	625.1mΩ
50	-25.70V	-0.0009uA	609.5mΩ	-25.69V	-0.0008uA	642.8mΩ
51	-25.61V	-0.0009uA	629.8mΩ	-25.72V	-0.0008uA	613.2mΩ
52	-25.76V	-0.0009uA	643.2mΩ	-25.65V	-0.0008uA	629.1mΩ
53	-25.65V	-0.0008uA	612.7mΩ	-25.62V	-0.0009uA	644.9mΩ
54	-25.72V	-0.0008uA	635.4mΩ	-25.59V	-0.0007uA	606.9mΩ
55	-25.61V	-0.0008uA	627.4mΩ	-25.70V	-0.0008uA	605.8mΩ
56	-25.63V	-0.0009uA	642.0mΩ	-25.64V	-0.0007uA	624.0mΩ
57	-25.67V	-0.0008uA	611.4mΩ	-25.73V	-0.0008uA	644.0mΩ
58	-25.74V	-0.0008uA	620.5mΩ	-25.72V	-0.0009uA	645.8mΩ

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.72V	-0.0008uA	620.4mΩ	-25.63V	-0.0007uA	643.8mΩ
60	-25.76V	-0.0008uA	642.4mΩ	-25.59V	-0.0009uA	618.8mΩ
61	-25.70V	-0.0008uA	624.6mΩ	-25.61V	-0.0008uA	626.3mΩ
62	-25.75V	-0.0007uA	637.1mΩ	-25.67V	-0.0008uA	616.8mΩ
63	-25.59V	-0.0007uA	617.9mΩ	-25.78V	-0.0007uA	617.6mΩ
64	-25.71V	-0.0009uA	624.1mΩ	-25.74V	-0.0009uA	639.9mΩ
65	-25.59V	-0.0007uA	639.2mΩ	-25.69V	-0.0008uA	644.0mΩ
66	-25.77V	-0.0009uA	630.5mΩ	-25.77V	-0.0007uA	641.7mΩ
67	-25.77V	-0.0009uA	609.3mΩ	-25.75V	-0.0008uA	621.3mΩ
68	-25.72V	-0.0008uA	641.6mΩ	-25.78V	-0.0009uA	621.1mΩ
69	-25.68V	-0.0009uA	614.8mΩ	-25.72V	-0.0008uA	615.4mΩ
70	-25.61V	-0.0009uA	645.6mΩ	-25.61V	-0.0009uA	609.6mΩ
71	-25.78V	-0.0009uA	615.0mΩ	-25.63V	-0.0007uA	613.4mΩ
72	-25.73V	-0.0008uA	625.7mΩ	-25.62V	-0.0009uA	607.5mΩ
73	-25.65V	-0.0009uA	620.6mΩ	-25.68V	-0.0009uA	606.0mΩ
74	-25.68V	-0.0008uA	614.9mΩ	-25.75V	-0.0008uA	621.6mΩ
75	-25.68V	-0.0008uA	631.4mΩ	-25.68V	-0.0008uA	613.2mΩ
76	-25.67V	-0.0009uA	619.6mΩ	-25.69V	-0.0008uA	639.2mΩ
77	-25.75V	-0.0008uA	628.0mΩ	-25.73V	-0.0007uA	629.2mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.59V	-0.0008uA	623.1mΩ	-25.68V	-0.0007uA	608.6mΩ
2	-25.77V	-0.0008uA	635.7mΩ	-25.71V	-0.0008uA	618.9mΩ
3	-25.74V	-0.0008uA	631.4mΩ	-25.65V	-0.0007uA	613.1mΩ
4	-25.59V	-0.0009uA	619.9mΩ	-25.68V	-0.0009uA	645.3mΩ
5	-25.71V	-0.0007uA	636.9mΩ	-25.60V	-0.0008uA	637.2mΩ
6	-25.77V	-0.0008uA	631.6mΩ	-25.76V	-0.0007uA	643.0mΩ
7	-25.77V	-0.0009uA	625.2mΩ	-25.65V	-0.0007uA	624.6mΩ
8	-25.77V	-0.0007uA	635.8mΩ	-25.62V	-0.0008uA	623.7mΩ
9	-25.59V	-0.0009uA	632.7mΩ	-25.58V	-0.0009uA	643.1mΩ
10	-25.66V	-0.0008uA	626.4mΩ	-25.58V	-0.0008uA	629.5mΩ
11	-25.73V	-0.0008uA	609.4mΩ	-25.68V	-0.0009uA	607.7mΩ
12	-25.62V	-0.0008uA	622.0mΩ	-25.60V	-0.0007uA	625.2mΩ
13	-25.72V	-0.0008uA	625.8mΩ	-25.74V	-0.0008uA	608.3mΩ
13	-25.78V	-0.0009uA	637.6mΩ	-25.68V	-0.0009uA	619.4mΩ
15	-25.76V	-0.0008uA	612.3mΩ	-25.66V	-0.0008uA	616.3mΩ
16	-25.64V	-0.0007uA	623.5mΩ	-25.62V	-0.0008uA	606.8mΩ
17	-25.72V	-0.0008uA	627.4mΩ	-25.71V	-0.0008uA	623.3mΩ
18	-25.76V	-0.0009uA	612.0mΩ	-25.73V	-0.0008uA	627.6mΩ
19	-25.66V	-0.0008uA	607.6mΩ	-25.58V	-0.0008uA	639.4mΩ
20	-25.62V	-0.0008uA	627.4mΩ	-25.73V	-0.0008uA	634.9mΩ
21	-25.76V	-0.0007uA	630.1mΩ	-25.63V	-0.0008uA	639.5mΩ
22	-25.62V	-0.0007uA	624.0mΩ	-25.67V	-0.0008uA	625.7mΩ
23	-25.65V	-0.0007uA	644.9mΩ	-25.69V	-0.0009uA	606.2mΩ
24	-25.67V	-0.0009uA	626.3mΩ	-25.65V	-0.0008uA	622.1mΩ
25	-25.75V	-0.0008uA	616.2mΩ	-25.65V	-0.0007uA	619.0mΩ
26	-25.73V	-0.0007uA	626.2mΩ	-25.65V	-0.0007uA	624.4mΩ
27	-25.66V	-0.0008uA	630.7mΩ	-25.71V	-0.0008uA	607.5mΩ
28	-25.75V	-0.0007uA	643.8mΩ	-25.78V	-0.0008uA	608.2mΩ
29	-25.62V	-0.0007uA	619.7mΩ	-25.67V	-0.0008uA	606.6mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
30	-25.64V	-0.0009uA	645.2mΩ	-25.65V	-0.0007uA	627.0mΩ
31	-25.60V	-0.0008uA	622.7mΩ	-25.64V	-0.0007uA	640.2mΩ
32	-25.69V	-0.0007uA	614.5mΩ	-25.75V	-0.0009uA	638.3mΩ
33	-25.77V	-0.0008uA	619.2mΩ	-25.76V	-0.0008uA	612.8mΩ
34	-25.63V	-0.0008uA	633.6mΩ	-25.67V	-0.0007uA	628.7mΩ
35	-25.74V	-0.0007uA	630.8mΩ	-25.59V	-0.0008uA	625.5mΩ
36	-25.67V	-0.0008uA	645.9mΩ	-25.76V	-0.0009uA	605.7mΩ
37	-25.65V	-0.0007uA	645.2mΩ	-25.72V	-0.0009uA	613.1mΩ
38	-25.74V	-0.0008uA	639.9mΩ	-25.60V	-0.0008uA	619.0mΩ
39	-25.58V	-0.0009uA	607.7mΩ	-25.62V	-0.0008uA	644.0mΩ
40	-25.62V	-0.0008uA	614.6mΩ	-25.73V	-0.0008uA	618.7mΩ
41	-25.63V	-0.0007uA	631.2mΩ	-25.78V	-0.0008uA	640.4mΩ
42	-25.70V	-0.0008uA	627.7mΩ	-25.65V	-0.0009uA	642.2mΩ
43	-25.74V	-0.0009uA	617.0mΩ	-25.77V	-0.0008uA	633.8mΩ
44	-25.66V	-0.0008uA	643.4mΩ	-25.66V	-0.0009uA	634.0mΩ
45	-25.68V	-0.0008uA	610.6mΩ	-25.62V	-0.0009uA	644.9mΩ
46	-25.75V	-0.0009uA	631.3mΩ	-25.69V	-0.0008uA	631.4mΩ
47	-25.76V	-0.0007uA	610.8mΩ	-25.68V	-0.0008uA	624.5mΩ
48	-25.67V	-0.0008uA	622.8mΩ	-25.66V	-0.0007uA	614.6mΩ
49	-25.74V	-0.0009uA	627.3mΩ	-25.73V	-0.0009uA	631.6mΩ
50	-25.65V	-0.0008uA	639.9mΩ	-25.72V	-0.0009uA	644.9mΩ
51	-25.69V	-0.0008uA	613.2mΩ	-25.71V	-0.0009uA	637.4mΩ
52	-25.66V	-0.0008uA	619.0mΩ	-25.74V	-0.0008uA	611.0mΩ
53	-25.70V	-0.0008uA	636.1mΩ	-25.76V	-0.0008uA	639.4mΩ
54	-25.63V	-0.0009uA	619.7mΩ	-25.73V	-0.0007uA	607.3mΩ
55	-25.77V	-0.0008uA	644.1mΩ	-25.68V	-0.0007uA	644.7mΩ
56	-25.74V	-0.0007uA	625.3mΩ	-25.73V	-0.0007uA	619.9mΩ
57	-25.68V	-0.0008uA	633.1mΩ	-25.74V	-0.0007uA	616.2mΩ
58	-25.73V	-0.0009uA	622.8mΩ	-25.75V	-0.0008uA	624.9mΩ

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.09.10 ~ 2018.10.23
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
59	-25.76V	-0.0007uA	618.8mΩ	-25.59V	-0.0008uA	640.1mΩ
60	-25.58V	-0.0009uA	621.3mΩ	-25.71V	-0.0008uA	645.3mΩ
61	-25.74V	-0.0008uA	626.4mΩ	-25.59V	-0.0008uA	614.7mΩ
62	-25.73V	-0.0008uA	635.9mΩ	-25.74V	-0.0008uA	633.2mΩ
63	-25.75V	-0.0007uA	641.4mΩ	-25.60V	-0.0008uA	610.6mΩ
64	-25.64V	-0.0008uA	638.1mΩ	-25.68V	-0.0007uA	630.8mΩ
65	-25.73V	-0.0008uA	633.7mΩ	-25.63V	-0.0008uA	621.8mΩ
66	-25.63V	-0.0009uA	644.2mΩ	-25.75V	-0.0008uA	624.4mΩ
67	-25.66V	-0.0008uA	606.3mΩ	-25.59V	-0.0008uA	645.9mΩ
68	-25.59V	-0.0008uA	605.9mΩ	-25.67V	-0.0007uA	612.0mΩ
69	-25.67V	-0.0009uA	631.3mΩ	-25.72V	-0.0008uA	637.0mΩ
70	-25.60V	-0.0007uA	630.9mΩ	-25.58V	-0.0008uA	627.4mΩ
71	-25.75V	-0.0009uA	606.9mΩ	-25.61V	-0.0008uA	628.9mΩ
72	-25.61V	-0.0009uA	637.1mΩ	-25.59V	-0.0008uA	611.5mΩ
73	-25.59V	-0.0008uA	608.7mΩ	-25.68V	-0.0008uA	633.9mΩ
74	-25.74V	-0.0008uA	639.5mΩ	-25.76V	-0.0009uA	625.0mΩ
75	-25.67V	-0.0009uA	622.1mΩ	-25.66V	-0.0009uA	622.0mΩ
76	-25.75V	-0.0007uA	612.9mΩ	-25.72V	-0.0008uA	632.4mΩ
77	-25.75V	-0.0008uA	612.9mΩ	-25.78V	-0.0007uA	634.9mΩ

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T181023-3139K
Part No : SCG3139K-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : -20V < V(BR)DSS@ID=-250μA ；IDSS < -1.0μA@VDS=-20V
RDS(ON) < 900mΩ@VGS=-4.5V, ID=-500mA
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2018.10.23
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$	$V_{(BR)DSS}$	I_{DSS}	$R_{DS(ON)}$
1	-25.72V	-0.0009uA	620.3mΩ	-25.66V	-0.0007uA	619.7mΩ
2	-25.60V	-0.0009uA	605.6mΩ	-25.74V	-0.0007uA	627.5mΩ
3	-25.70V	-0.0008uA	630.2mΩ	-25.73V	-0.0008uA	638.7mΩ
4	-25.64V	-0.0008uA	633.1mΩ	-25.66V	-0.0009uA	616.2mΩ
5	-25.74V	-0.0007uA	632.6mΩ	-25.71V	-0.0008uA	637.5mΩ
6	-25.59V	-0.0008uA	614.2mΩ	-25.59V	-0.0008uA	634.5mΩ
7	-25.66V	-0.0009uA	623.6mΩ	-25.63V	-0.0008uA	631.0mΩ
8	-25.72V	-0.0008uA	632.6mΩ	-25.65V	-0.0008uA	630.8mΩ
9	-25.59V	-0.0007uA	610.9mΩ	-25.59V	-0.0008uA	638.9mΩ
10	-25.71V	-0.0008uA	611.3mΩ	-25.68V	-0.0008uA	614.4mΩ

Made By: King Huang

Approval: Peter Yang