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
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Product/Process Change Notification

PCN#	Effective Date	Issue Date
2014-11-15C-02	2015/2/15	2014/11/15

PCN Classification	Product Category
Major	Bridge Diode

Subject

Change assembly factory for DB-1 package

Affected Product(s)

DB101~DB107, DB1501~DB1507

Description of Change(s)

Original assembly factory EOL, thus we change assembly factory; The new assembly factory Good-ARK electronics CO., LTD, located in the No.31 Tongxi Road, TongAn Economic Development Zone, 215153, Suzhou, Jiangsu, P.R.China.

Content of Change(s)

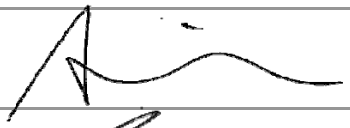
Assembly house.

Impact(s)

None

Attachment(s)

Reliability test report. SGS Report. Packge information. Specification.

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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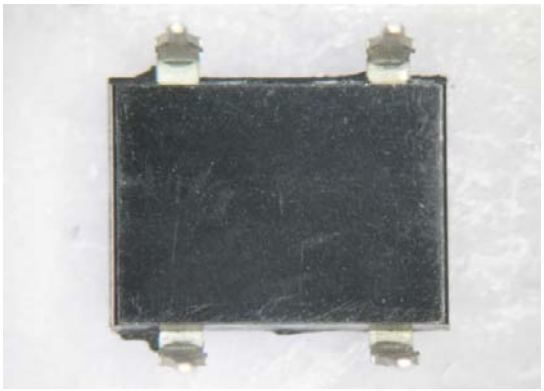
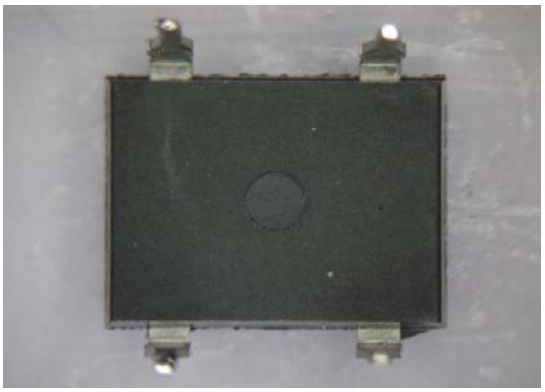
Reference of	
Original	News
 Top View	 Top View
 Back View	 Back View

Elektronische Bauelemente

DB101 ~ DB107

VOLTAGE 50 V ~ 1000 V

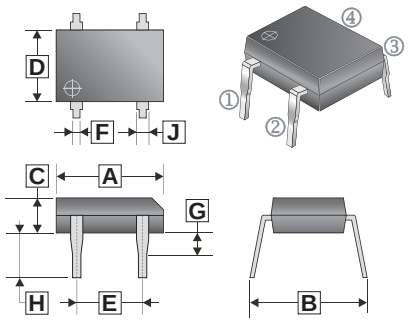
1.0 Amp Surface Mount Bridge Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop, high current capability
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive products
- Lead tin Pb / Sn copper
- The plastic material has UL flammability classification 94V-0

DB-1



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	8.00	9.30	F	0.55 REF.	
B	7.60	8.90	G	1.50 REF.	
C	2.90	3.40	H	3.80	4.70
D	6.20	6.50	J	-	-
E	5.00	5.20			

MECHANICAL DATA

- Polarity: As marked on Body
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

PARAMETERS		SYMBOL	DB 101	DB 102	DB 103	DB 104	DB 105	DB 106	DB 107	UNIT
Peak Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage		V_{RMS}	35	70	140	280	420	560	700	
DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current @T_A=40℃		$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)		I_{FSM}	50							A
Maximum Forward Voltage at 1A DC		V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25℃	I_R	10							uA
	T_J=125℃		500							
I^2t Rating for Fusing (t<8.3ms)		I^2t	10							A^2s
Typical Junction Capacitance Per Element (Note1)		C_J	25							pF
Typical Thermal Resistance (Note2)		$R_{\theta JA}$	40							℃/W
Operating and Storage temperature range		T_J, T_{STG}	-55 ~ 150							℃

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC
2. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

RATINGS AND CHARACTERISTIC CURVES

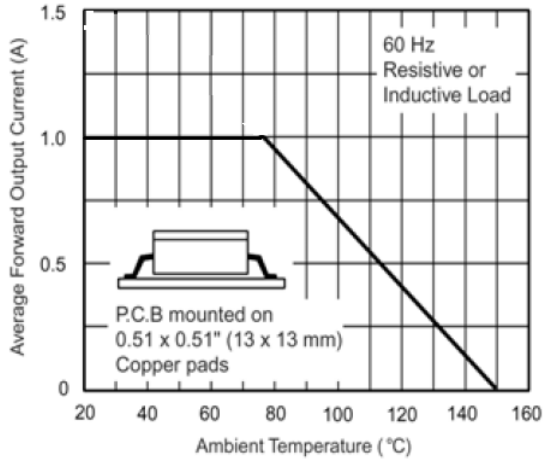


Figure 1. Derating Curve Output Rectified Current

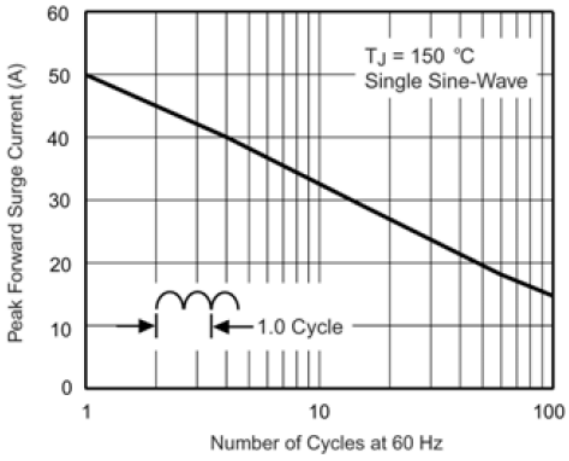


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

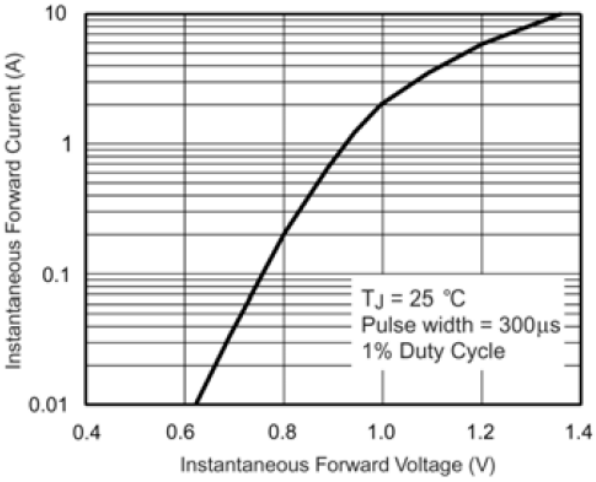


Figure 3. Typical Forward Characteristics Per Leg

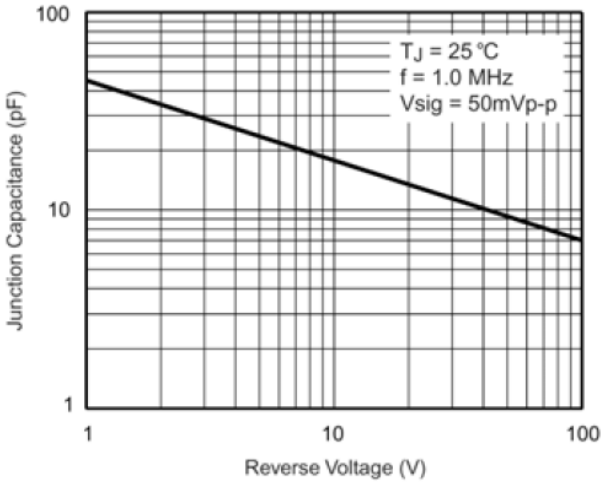


Figure 5. Typical Junction Capacitance Per Leg

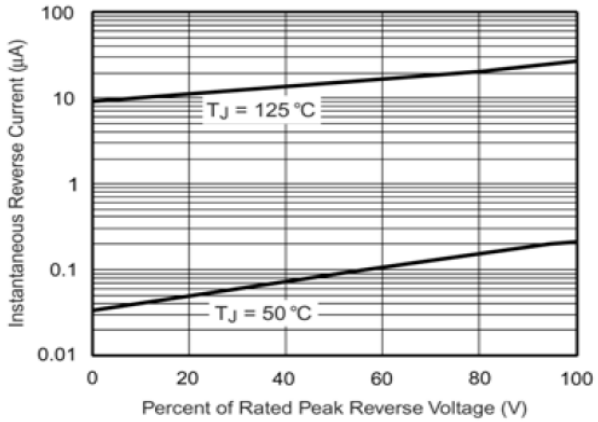


Figure 4. Typical Reverse Leakage Characteristics Per Leg

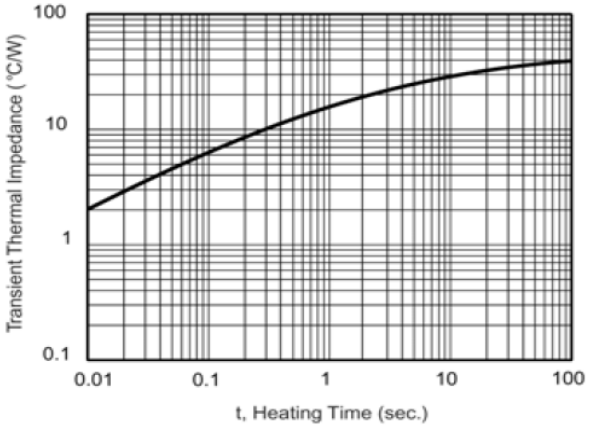


Figure 6. Typical Transient Thermal Impedance

Elektronische Bauelemente

DB1501 ~ DB1507

VOLTAGE 50 V ~ 1000 V

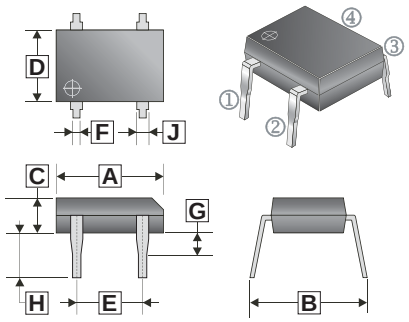
1.5 Amp Surface Mount Bridge Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop, high current capability
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive products
- Lead tin Pb / Sn copper
- The plastic material has UL flammability classification 94V-0

DB-1



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	8.00	9.30	F	0.55 REF.	
B	7.60	8.90	G	1.50 REF.	
C	2.90	3.40	H	3.80	4.70
D	6.20	6.50	J	-	-
E	5.00	5.20			

MECHANICAL DATA

- Polarity: As marked on Body
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

PARAMETERS		SYMBOL	DB 1501	DB 1502	DB 1503	DB 1504	DB 1505	DB 1506	DB 1507	UNIT
Peak Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage		V_{RMS}	35	70	140	280	420	560	700	
DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current @T_A=40℃		$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)		I_{FSM}	50							A
Maximum Forward Voltage at 1.5A DC		V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25℃	I_R	10							uA
	T_J=125℃		500							
I^2t Rating for Fusing (t<8.3ms)		I^2t	10							A^2s
Typical Junction Capacitance Per Element (Note1)		C_J	25							pF
Typical Thermal Resistance (Note2)		$R_{\theta JA}$	40							℃/W
Operating and Storage temperature range		T_J, T_{STG}	-55 ~ 150							℃

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC
2. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

RATINGS AND CHARACTERISTIC CURVES

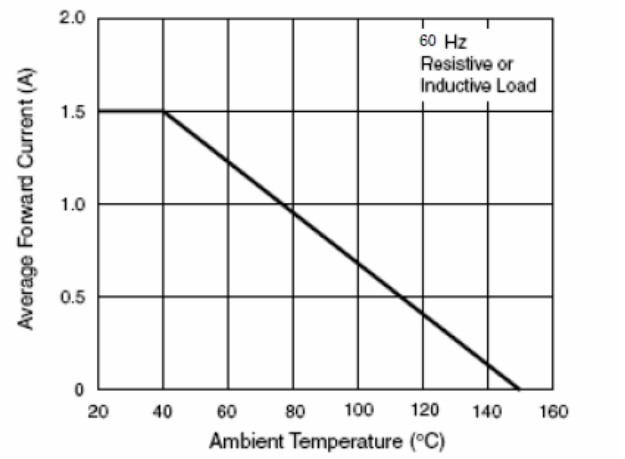


Figure 1. Forward Current Derating Curve Per Diode

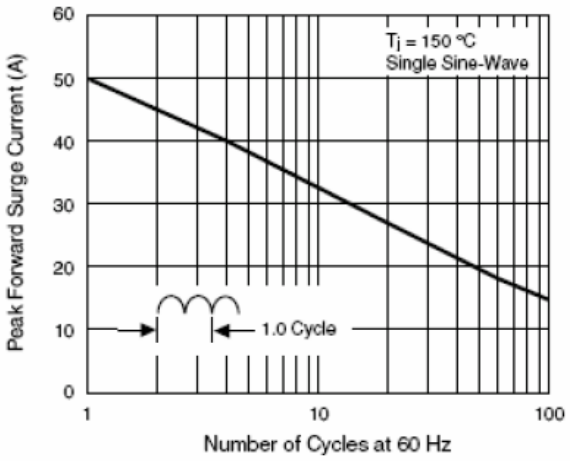


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

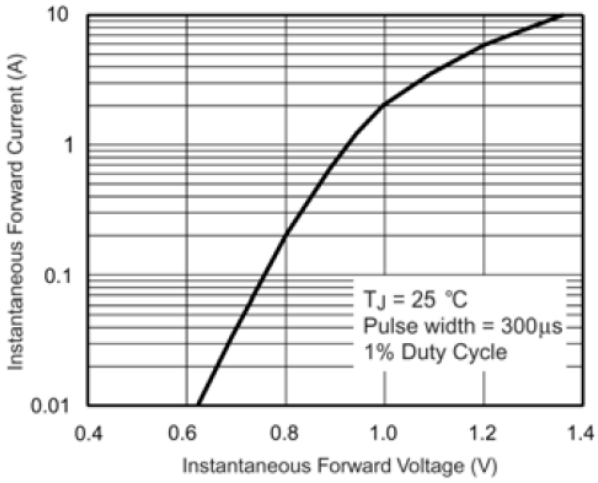


Figure 3. Typical Forward Characteristics Per Leg

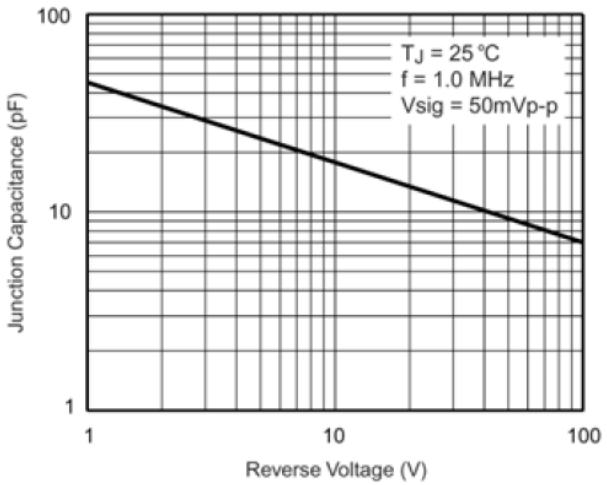


Figure 5. Typical Junction Capacitance Per Leg

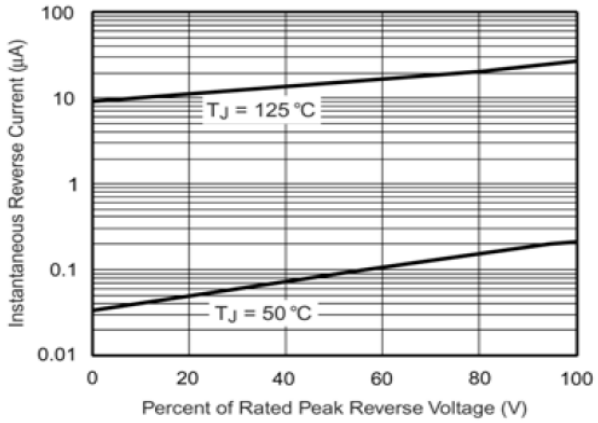


Figure 4. Typical Reverse Leakage Characteristics Per Leg

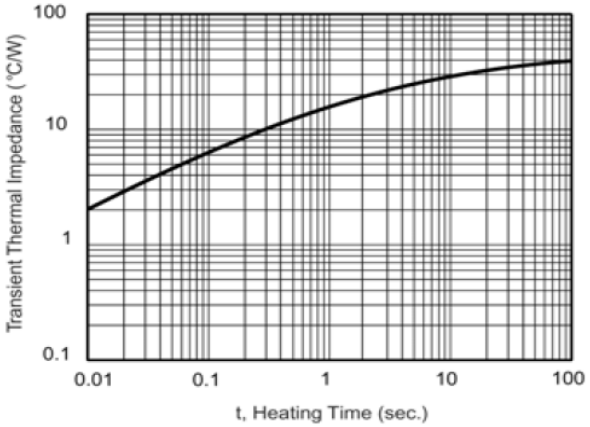


Figure 6. Typical Transient Thermal Impedance

Elektronische Bauelemente

Packaging Information

Packaging of Diodes and Bridge Rectifiers

PACKAGING OF DIODES AND BRIDGE RECTIFIERS

BULK PACK

OUTLINE	BOX (pcs)	CARTON (pcs)	CARTON SIZE (m/m)	GROSS WEIGHT (kgs)
TO-92	1,000	10,000	190 X 130 X 130	2.5
R-1	1,000	50,000	465 X 230 X 260	12.4
A-405	1,000	50,000	465 X 230 X 260	13.4
DO-41	1,000	50,000	465 X 230 X 260	19.2
DO-15	500	25,000	465 X 230 X 260	12.5
R-3	500	25,000	465 X 230 X 260	17.2
DO-27	500	12,000	355 X 320 X 280	17.2
R-6	250	6,000	355 X 320 X 280	14.5
DB-1	3,500	-	545 X 140 X 80	12.0
DB-1S	4,000	16,000	465 X 170 X 295	17.5
RB15/WOM/WOL	1,000	10,000	500 X 230 X 380	14.0
RS-2	400	4,000	510 X 250 X 300	13.1
RS-4L/KBL	500	3,000	490 X 240 X 192	18.0
BR-3	200	1,600	470 X 220 X 270	5.9
RS-1	400	4,000	510 X 250 X 300	24.3
RS-4M/RS-6M/RS-8M	20	1,200	545 X 225 X 100	7.1
BR-6	200	1,600	470 X 220 X 270	8.1
RS-6/RS-8	400	4,000	510 X 250 X 300	26.7
BR-8/BR-10	200	2,000	510 X 250 X 300	13.7
MB-15/MB-25/MB-35	50	400	470 X 220 X 270	14.9
ITO/TO-220(A)(F)	50 (Tube)	2,000	550 X 170 X 100	5.0
TO-247(TO-3P)	50 (Tube)	4000	430 X 290 X 335	24.4
KBU/GBU/TBU	400	2,000	560 X 300 X 180	21.0
KBP	500	6,000	445 X 215 X 260	15.0

PACKAGING OF DIODES AND BRIDGE RECTIFIERS

REEL PACK

OUTLINE	REEL (pcs)	CARTON (pcs)	CARTON SIZE (m/m)	GROSS WEIGHT (kgs)
A-405	5,000	20,000	350 X 350 X 350	8.2
DO-41 (G)	5,000	20,000	350 X 350 X 350	10.5 (8.4)
DO-15	4,000	16,000	350 X 350 X 350	9.7
R-3	3,000	12,000	350 X 350 X 350	12.7
DO-27	1,200	4,800	350 X 350 X 350	8.3
R-6	1,000	4,000	350 X 350 X 350	9.5
SM-1	5,000	80,000	360 X 360 X 360	19.0
DO-214AC(SMA)	5,000	80,000	360 X 360 X 360	13.2
DO-214AC(SMB)	3,000	48,000	410 X 400 X 390	13.6
DO-214AC(SMC)	3,000	42,000	410 X 400 X 390	18.3

AMMUNITION PACK

OUTLINE	AMMO (pcs)	CARTON (pcs)	CARTON SIZE (m/m)	GROSS WEIGHT (kgs)
A-405 (52mm Taping)	5,000	50,000	470 X 275 X 235	18.5
DO-41(52mm Taping)	5,000	50,000	470 X 275 X 235	20.7
DO-41	2,500	50,000	410 X 350 X 275	22.0
DO-41(26mm Taping)	5,000	50,000	275 X 270 X 235	14.4
DO-15(52mm Taping)	2,000	20,000	360 X 350 X 350	9.5
DO-27(52mm Taping)	1,200	12,000	470 X 275 X 235	18.5
DO-27(TVS)	1,000	10,000	350 X 350 X 350	18.5
R-1(26mm Taping)	3,000	63,000	395 X 295 X 270	12.0
A-405(26mm Taping)	5,000	50,000	470 X 275 X 235	13.4
A-405(Panasert)	3,000	30,000	275 X 175 X 200	13.8
R-1(Radial Taping)	3,000	30,000	275 X 175 X 200	12.2
DO-35(52mm Taping)	10,000	50,000	265 X 140 X 75	8.5
DO-35 (52mm Taping) Zener	5,000	50,000	260 X 80 X 75	8.5

SeCoS Corporation

Reliability Testing Summary Report

Date: 2014/08/20 Document No.: SH14 -08- 02

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	DB1507	150 ± 10℃, 80%VR, T = 1000hrs		77	0	0	ACC
HTSL High Temperature Storage Life	DB1507	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	DB1507	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	DB1507	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	DB1507	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
Solder Resistance DITY	DB1507	270±5℃, 7Sec ＋2/－0 Sec		10	0	0	ACC

Judgment:

■ **qualified** □ **unqualified**

Testing Start Date: 2014.07.01 **Testing End Date:** 2014.08.20

Tester: Leo Hsia **Approval:** Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 25℃
Test Date: 2014.07.01 ~ 2014.07.01
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	AC2→＋		—→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	937.4mV	0.092uA	944.4mV	0.106uA
2	958.8mV	0.081uA	942.1mV	0.078uA
3	949.6mV	0.086uA	941.3mV	0.078uA
4	941.5mV	0.090uA	952.2mV	0.081uA
5	959.2mV	0.093uA	953.8mV	0.059uA
6	957.1mV	0.059uA	944.7mV	0.083uA
7	953.0mV	0.072uA	956.0mV	0.103uA
8	951.3mV	0.057uA	958.7mV	0.055uA
9	945.2mV	0.090uA	945.0mV	0.082uA
10	948.4mV	0.048uA	945.8mV	0.046uA
11	949.4mV	0.076uA	954.2mV	0.074uA
12	955.9mV	0.104uA	940.1mV	0.046uA
13	959.6mV	0.058uA	943.6mV	0.096uA
14	937.4mV	0.106uA	952.1mV	0.061uA
15	946.7mV	0.105uA	940.4mV	0.089uA
16	959.2mV	0.101uA	955.4mV	0.103uA
17	957.4mV	0.069uA	958.1mV	0.087uA
18	949.6mV	0.056uA	959.3mV	0.048uA
19	959.8mV	0.078uA	937.2mV	0.077uA
20	955.5mV	0.099uA	947.4mV	0.066uA
21	955.6mV	0.074uA	948.9mV	0.048uA
22	958.4mV	0.105uA	944.9mV	0.102uA
23	950.2mV	0.070uA	951.3mV	0.098uA
24	950.3mV	0.108uA	943.8mV	0.063uA
25	943.9mV	0.074uA	951.4mV	0.082uA
26	951.3mV	0.050uA	951.6mV	0.068uA
27	954.9mV	0.058uA	953.3mV	0.091uA
28	948.5mV	0.053uA	959.3mV	0.081uA
29	953.6mV	0.090uA	957.4mV	0.092uA
30	938.8mV	0.108uA	945.0mV	0.073uA
31	949.4mV	0.055uA	955.5mV	0.095uA
32	949.6mV	0.084uA	952.3mV	0.100uA
33	959.1mV	0.076uA	939.2mV	0.088uA
34	946.6mV	0.110uA	945.4mV	0.104uA
35	937.4mV	0.103uA	942.8mV	0.102uA
36	956.8mV	0.075uA	949.5mV	0.056uA
37	949.0mV	0.097uA	939.2mV	0.098uA
38	938.4mV	0.070uA	947.8mV	0.077uA
39	948.7mV	0.061uA	951.9mV	0.074uA
40	945.6mV	0.105uA	953.5mV	0.077uA

SeCoS Corporation

Electrical Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 25℃
Test Date: 2014.07.01 ~ 2014.07.01
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	AC2→＋		−→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	943.8mV	0.088uA	943.2mV	0.083uA
42	959.6mV	0.095uA	940.1mV	0.078uA
43	950.5mV	0.061uA	939.6mV	0.100uA
44	954.1mV	0.088uA	937.7mV	0.094uA
45	953.0mV	0.095uA	944.6mV	0.109uA
46	937.4mV	0.050uA	938.7mV	0.052uA
47	941.5mV	0.089uA	941.1mV	0.082uA
48	944.4mV	0.048uA	950.8mV	0.085uA
49	952.7mV	0.073uA	956.2mV	0.058uA
50	948.3mV	0.057uA	950.5mV	0.052uA
51	959.9mV	0.092uA	951.6mV	0.066uA
52	940.8mV	0.099uA	948.0mV	0.061uA
53	953.9mV	0.049uA	946.9mV	0.067uA
54	945.8mV	0.088uA	957.3mV	0.072uA
55	937.6mV	0.054uA	954.2mV	0.066uA
56	944.6mV	0.052uA	951.1mV	0.106uA
57	939.3mV	0.098uA	946.7mV	0.049uA
58	937.2mV	0.054uA	957.8mV	0.070uA
59	943.7mV	0.052uA	937.4mV	0.072uA
60	957.0mV	0.098uA	939.9mV	0.062uA
61	941.2mV	0.085uA	955.7mV	0.096uA
62	954.7mV	0.046uA	942.8mV	0.046uA
63	955.9mV	0.082uA	954.6mV	0.048uA
64	947.5mV	0.109uA	952.5mV	0.060uA
65	953.1mV	0.099uA	948.2mV	0.106uA
66	957.0mV	0.103uA	938.6mV	0.090uA
67	940.5mV	0.052uA	958.8mV	0.092uA
68	941.3mV	0.047uA	951.5mV	0.086uA
69	938.2mV	0.088uA	952.2mV	0.088uA
70	940.5mV	0.074uA	954.0mV	0.056uA
71	941.2mV	0.108uA	958.4mV	0.045uA
72	958.9mV	0.104uA	942.8mV	0.080uA
73	958.0mV	0.095uA	949.2mV	0.051uA
74	947.1mV	0.096uA	956.6mV	0.074uA
75	945.7mV	0.074uA	951.4mV	0.060uA
76	959.9mV	0.075uA	939.0mV	0.076uA
77	951.3mV	0.060uA	952.6mV	0.088uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 150 ± 10℃, 80%VR, T = 1000 hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A108
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→＋		―→AC1		AC2→＋		―→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	959.5mV	0.052uA	955.7mV	0.080uA	942.9mV	0.062uA	948.2mV	0.074uA
2	939.0mV	0.086uA	959.7mV	0.067uA	941.2mV	0.091uA	958.6mV	0.074uA
3	951.0mV	0.050uA	956.5mV	0.059uA	937.7mV	0.048uA	941.2mV	0.081uA
4	947.6mV	0.095uA	943.5mV	0.102uA	950.7mV	0.098uA	957.0mV	0.084uA
5	943.0mV	0.069uA	954.4mV	0.089uA	950.7mV	0.069uA	944.7mV	0.056uA
6	955.9mV	0.075uA	949.1mV	0.059uA	948.1mV	0.060uA	939.7mV	0.091uA
7	954.5mV	0.067uA	944.7mV	0.058uA	942.0mV	0.056uA	942.4mV	0.105uA
8	956.3mV	0.110uA	938.4mV	0.084uA	940.1mV	0.084uA	954.4mV	0.078uA
9	958.4mV	0.100uA	940.7mV	0.108uA	946.1mV	0.086uA	954.6mV	0.089uA
10	948.4mV	0.087uA	949.5mV	0.066uA	953.7mV	0.080uA	954.4mV	0.049uA
11	944.8mV	0.091uA	945.5mV	0.049uA	959.1mV	0.106uA	959.3mV	0.096uA
12	955.9mV	0.067uA	953.1mV	0.080uA	949.0mV	0.066uA	952.1mV	0.093uA
13	954.6mV	0.090uA	955.4mV	0.051uA	942.8mV	0.056uA	951.0mV	0.066uA
14	957.2mV	0.047uA	958.7mV	0.098uA	951.6mV	0.096uA	946.1mV	0.084uA
15	951.9mV	0.108uA	946.1mV	0.096uA	952.1mV	0.079uA	949.9mV	0.053uA
16	959.3mV	0.048uA	937.3mV	0.079uA	941.7mV	0.060uA	958.7mV	0.091uA
17	939.6mV	0.076uA	953.9mV	0.107uA	953.1mV	0.076uA	937.5mV	0.108uA
18	948.9mV	0.074uA	953.8mV	0.087uA	943.9mV	0.099uA	949.8mV	0.101uA
19	957.5mV	0.073uA	947.9mV	0.091uA	941.9mV	0.068uA	959.1mV	0.059uA
20	945.0mV	0.109uA	944.2mV	0.084uA	952.0mV	0.109uA	953.2mV	0.099uA
21	944.7mV	0.077uA	946.7mV	0.064uA	941.4mV	0.079uA	959.7mV	0.100uA
22	959.1mV	0.059uA	949.2mV	0.105uA	940.8mV	0.091uA	956.8mV	0.092uA
23	956.3mV	0.079uA	944.1mV	0.060uA	938.3mV	0.080uA	950.5mV	0.060uA
24	955.1mV	0.089uA	952.6mV	0.095uA	953.0mV	0.094uA	938.8mV	0.109uA
25	956.7mV	0.108uA	948.9mV	0.089uA	949.2mV	0.096uA	941.3mV	0.094uA
26	944.7mV	0.098uA	953.5mV	0.082uA	951.9mV	0.049uA	952.2mV	0.091uA
27	944.4mV	0.106uA	949.0mV	0.071uA	955.6mV	0.068uA	942.4mV	0.082uA
28	942.8mV	0.099uA	940.2mV	0.077uA	951.5mV	0.105uA	949.6mV	0.061uA
29	949.1mV	0.056uA	954.5mV	0.065uA	953.2mV	0.046uA	956.8mV	0.061uA
30	958.3mV	0.067uA	940.1mV	0.048uA	942.5mV	0.078uA	945.9mV	0.074uA
31	939.9mV	0.093uA	958.1mV	0.063uA	949.2mV	0.082uA	946.5mV	0.090uA
32	940.4mV	0.103uA	947.9mV	0.107uA	942.7mV	0.105uA	952.7mV	0.078uA
33	954.1mV	0.108uA	946.2mV	0.059uA	941.8mV	0.062uA	956.3mV	0.076uA
34	941.3mV	0.051uA	940.7mV	0.107uA	940.6mV	0.084uA	948.6mV	0.047uA
35	959.2mV	0.090uA	939.2mV	0.066uA	941.8mV	0.078uA	957.7mV	0.065uA
36	944.1mV	0.106uA	945.4mV	0.093uA	951.1mV	0.076uA	939.0mV	0.097uA
37	949.2mV	0.098uA	943.2mV	0.068uA	948.9mV	0.088uA	949.7mV	0.054uA
38	955.7mV	0.085uA	957.8mV	0.046uA	944.7mV	0.046uA	954.7mV	0.056uA
39	955.8mV	0.047uA	946.2mV	0.098uA	959.9mV	0.085uA	954.8mV	0.088uA
40	938.4mV	0.108uA	948.0mV	0.093uA	951.7mV	0.058uA	946.8mV	0.046uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 150 ± 10℃, 80%VR, T = 1000 hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A108
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→＋		―→AC1		AC2→＋		―→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	954.2mV	0.095uA	955.3mV	0.091uA	940.1mV	0.063uA	951.5mV	0.061uA
42	938.2mV	0.110uA	941.2mV	0.047uA	957.9mV	0.047uA	940.2mV	0.093uA
43	941.9mV	0.072uA	953.7mV	0.056uA	953.2mV	0.104uA	952.1mV	0.051uA
44	943.4mV	0.096uA	951.8mV	0.056uA	955.3mV	0.072uA	939.4mV	0.051uA
45	953.8mV	0.093uA	939.9mV	0.101uA	949.0mV	0.047uA	947.5mV	0.078uA
46	951.7mV	0.089uA	940.2mV	0.086uA	942.0mV	0.077uA	952.5mV	0.045uA
47	946.6mV	0.058uA	953.8mV	0.088uA	944.0mV	0.103uA	948.4mV	0.064uA
48	947.0mV	0.108uA	954.1mV	0.077uA	945.2mV	0.102uA	947.7mV	0.081uA
49	952.9mV	0.086uA	949.1mV	0.067uA	938.8mV	0.085uA	949.2mV	0.069uA
50	947.7mV	0.106uA	940.2mV	0.054uA	943.4mV	0.109uA	952.0mV	0.093uA
51	953.6mV	0.069uA	938.7mV	0.083uA	945.1mV	0.078uA	954.9mV	0.083uA
52	949.6mV	0.094uA	939.0mV	0.075uA	952.4mV	0.091uA	958.8mV	0.072uA
53	946.6mV	0.096uA	959.8mV	0.047uA	958.1mV	0.081uA	944.2mV	0.071uA
54	939.7mV	0.056uA	950.0mV	0.046uA	946.1mV	0.048uA	937.8mV	0.102uA
55	951.5mV	0.108uA	938.9mV	0.063uA	956.8mV	0.092uA	941.1mV	0.092uA
56	957.3mV	0.091uA	951.4mV	0.097uA	956.1mV	0.048uA	944.8mV	0.095uA
57	942.3mV	0.086uA	944.6mV	0.091uA	949.5mV	0.086uA	943.6mV	0.101uA
58	948.9mV	0.079uA	941.0mV	0.108uA	945.2mV	0.078uA	949.7mV	0.068uA
59	938.5mV	0.106uA	944.8mV	0.072uA	945.7mV	0.067uA	956.2mV	0.057uA
60	955.2mV	0.058uA	957.8mV	0.078uA	946.9mV	0.049uA	952.0mV	0.087uA
61	939.2mV	0.090uA	942.3mV	0.065uA	942.4mV	0.050uA	944.2mV	0.092uA
62	944.6mV	0.047uA	953.8mV	0.057uA	950.1mV	0.056uA	945.8mV	0.087uA
63	953.4mV	0.059uA	955.1mV	0.066uA	947.6mV	0.052uA	944.3mV	0.092uA
64	953.2mV	0.046uA	943.3mV	0.054uA	959.0mV	0.055uA	939.3mV	0.077uA
65	957.8mV	0.076uA	950.5mV	0.074uA	953.3mV	0.054uA	941.1mV	0.068uA
66	940.9mV	0.052uA	939.3mV	0.046uA	948.8mV	0.068uA	953.6mV	0.087uA
67	938.3mV	0.075uA	959.4mV	0.049uA	950.1mV	0.062uA	957.1mV	0.098uA
68	946.1mV	0.090uA	948.5mV	0.070uA	938.9mV	0.104uA	942.1mV	0.074uA
69	957.8mV	0.098uA	957.6mV	0.099uA	945.9mV	0.074uA	957.6mV	0.083uA
70	940.8mV	0.091uA	951.4mV	0.060uA	946.6mV	0.061uA	946.1mV	0.045uA
71	949.6mV	0.102uA	942.0mV	0.063uA	946.1mV	0.091uA	948.1mV	0.052uA
72	940.5mV	0.109uA	940.8mV	0.049uA	951.0mV	0.079uA	954.6mV	0.097uA
73	945.0mV	0.056uA	949.3mV	0.077uA	959.0mV	0.098uA	945.7mV	0.108uA
74	951.2mV	0.067uA	946.5mV	0.066uA	940.1mV	0.072uA	948.8mV	0.059uA
75	937.6mV	0.051uA	939.8mV	0.067uA	949.5mV	0.082uA	939.6mV	0.088uA
76	941.2mV	0.086uA	954.7mV	0.104uA	957.9mV	0.090uA	937.3mV	0.099uA
77	949.7mV	0.090uA	957.6mV	0.093uA	949.3mV	0.069uA	938.7mV	0.070uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A103
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→+		—→AC1		AC2→+		—→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	959.5mV	0.071uA	958.7mV	0.077uA	954.8mV	0.063uA	937.2mV	0.083uA
2	940.5mV	0.078uA	958.1mV	0.071uA	954.3mV	0.105uA	954.5mV	0.047uA
3	938.4mV	0.084uA	953.8mV	0.102uA	953.0mV	0.071uA	937.4mV	0.092uA
4	950.9mV	0.100uA	951.9mV	0.070uA	950.0mV	0.090uA	947.0mV	0.066uA
5	947.0mV	0.095uA	940.4mV	0.104uA	957.4mV	0.082uA	949.4mV	0.097uA
6	951.2mV	0.081uA	949.2mV	0.093uA	949.2mV	0.077uA	951.5mV	0.067uA
7	948.3mV	0.086uA	957.2mV	0.080uA	953.3mV	0.055uA	943.3mV	0.107uA
8	949.5mV	0.088uA	958.4mV	0.094uA	956.6mV	0.085uA	955.9mV	0.053uA
9	944.7mV	0.061uA	956.6mV	0.104uA	949.1mV	0.072uA	944.2mV	0.045uA
10	944.3mV	0.088uA	937.5mV	0.091uA	955.2mV	0.081uA	945.7mV	0.074uA
11	945.9mV	0.084uA	951.7mV	0.059uA	958.8mV	0.071uA	937.4mV	0.100uA
12	950.4mV	0.066uA	958.5mV	0.076uA	958.2mV	0.090uA	958.2mV	0.064uA
13	958.1mV	0.095uA	942.3mV	0.099uA	954.1mV	0.108uA	954.9mV	0.089uA
14	944.6mV	0.109uA	957.0mV	0.086uA	948.6mV	0.049uA	950.7mV	0.073uA
15	944.1mV	0.099uA	947.7mV	0.096uA	955.1mV	0.086uA	959.6mV	0.096uA
16	955.5mV	0.107uA	957.4mV	0.056uA	958.2mV	0.046uA	949.2mV	0.099uA
17	953.5mV	0.073uA	957.4mV	0.069uA	952.2mV	0.085uA	940.4mV	0.075uA
18	949.8mV	0.064uA	944.3mV	0.066uA	947.4mV	0.094uA	945.2mV	0.080uA
19	956.1mV	0.056uA	956.1mV	0.047uA	947.8mV	0.053uA	944.5mV	0.107uA
20	949.2mV	0.094uA	945.5mV	0.056uA	957.7mV	0.101uA	947.3mV	0.084uA
21	944.7mV	0.084uA	944.6mV	0.076uA	941.3mV	0.088uA	937.5mV	0.076uA
22	937.2mV	0.088uA	955.6mV	0.081uA	956.1mV	0.101uA	949.1mV	0.089uA
23	940.1mV	0.053uA	953.6mV	0.073uA	959.4mV	0.100uA	947.1mV	0.049uA
24	937.4mV	0.090uA	947.4mV	0.073uA	953.1mV	0.054uA	949.2mV	0.100uA
25	937.9mV	0.073uA	938.1mV	0.074uA	938.8mV	0.099uA	956.4mV	0.101uA
26	942.5mV	0.104uA	951.3mV	0.064uA	943.7mV	0.046uA	945.8mV	0.047uA
27	947.6mV	0.091uA	953.0mV	0.046uA	955.8mV	0.075uA	951.2mV	0.065uA
28	939.8mV	0.076uA	957.1mV	0.071uA	953.0mV	0.091uA	945.4mV	0.066uA
29	959.3mV	0.060uA	943.6mV	0.107uA	949.3mV	0.073uA	956.9mV	0.069uA
30	955.5mV	0.059uA	939.6mV	0.085uA	949.0mV	0.080uA	952.1mV	0.095uA
31	941.8mV	0.066uA	952.6mV	0.102uA	949.2mV	0.089uA	939.4mV	0.086uA
32	941.2mV	0.073uA	940.6mV	0.084uA	959.5mV	0.091uA	940.4mV	0.088uA
33	943.4mV	0.103uA	940.6mV	0.085uA	950.4mV	0.079uA	946.1mV	0.076uA
34	937.2mV	0.047uA	957.4mV	0.100uA	938.7mV	0.109uA	937.7mV	0.045uA
35	951.4mV	0.100uA	946.9mV	0.102uA	951.8mV	0.061uA	938.1mV	0.077uA
36	953.8mV	0.082uA	957.0mV	0.096uA	947.5mV	0.065uA	949.1mV	0.070uA
37	956.8mV	0.045uA	940.9mV	0.097uA	952.6mV	0.084uA	952.0mV	0.063uA
38	955.9mV	0.062uA	951.8mV	0.102uA	941.9mV	0.064uA	954.2mV	0.063uA
39	959.4mV	0.054uA	956.1mV	0.105uA	954.8mV	0.050uA	942.0mV	0.099uA
40	940.7mV	0.056uA	952.8mV	0.101uA	940.6mV	0.107uA	941.4mV	0.078uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 150℃, 1000Hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A103
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→+		−→AC1		AC2→+		−→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	945.6mV	0.098uA	945.2mV	0.045uA	959.4mV	0.099uA	949.2mV	0.057uA
42	946.6mV	0.108uA	949.6mV	0.097uA	955.7mV	0.073uA	937.7mV	0.047uA
43	945.0mV	0.057uA	945.3mV	0.055uA	939.5mV	0.084uA	954.3mV	0.086uA
44	949.0mV	0.052uA	955.1mV	0.072uA	945.4mV	0.066uA	946.0mV	0.099uA
45	949.7mV	0.047uA	948.3mV	0.054uA	946.3mV	0.067uA	944.9mV	0.109uA
46	939.0mV	0.105uA	938.0mV	0.103uA	943.7mV	0.098uA	951.5mV	0.071uA
47	953.3mV	0.090uA	952.1mV	0.046uA	950.5mV	0.054uA	950.9mV	0.050uA
48	941.8mV	0.083uA	937.9mV	0.083uA	939.1mV	0.110uA	938.7mV	0.074uA
49	957.0mV	0.047uA	941.6mV	0.081uA	954.2mV	0.047uA	944.2mV	0.069uA
50	945.1mV	0.060uA	958.9mV	0.058uA	946.2mV	0.082uA	953.8mV	0.094uA
51	952.1mV	0.064uA	939.0mV	0.063uA	952.9mV	0.069uA	939.2mV	0.093uA
52	945.2mV	0.070uA	944.7mV	0.051uA	945.4mV	0.056uA	945.2mV	0.081uA
53	947.5mV	0.062uA	947.5mV	0.068uA	953.0mV	0.068uA	941.5mV	0.098uA
54	942.6mV	0.047uA	944.8mV	0.059uA	944.9mV	0.046uA	937.2mV	0.083uA
55	957.2mV	0.107uA	942.6mV	0.065uA	944.1mV	0.093uA	955.0mV	0.088uA
56	959.0mV	0.064uA	949.5mV	0.052uA	938.1mV	0.083uA	942.9mV	0.051uA
57	939.5mV	0.108uA	959.7mV	0.108uA	958.1mV	0.079uA	956.8mV	0.058uA
58	947.2mV	0.075uA	955.0mV	0.072uA	942.6mV	0.073uA	942.9mV	0.046uA
59	959.0mV	0.100uA	948.4mV	0.077uA	958.7mV	0.090uA	950.1mV	0.084uA
60	942.3mV	0.049uA	946.9mV	0.062uA	941.3mV	0.104uA	943.7mV	0.099uA
61	958.8mV	0.091uA	955.7mV	0.048uA	945.2mV	0.078uA	944.5mV	0.107uA
62	953.5mV	0.087uA	956.7mV	0.099uA	945.0mV	0.102uA	937.9mV	0.081uA
63	950.2mV	0.097uA	940.9mV	0.099uA	939.8mV	0.086uA	949.7mV	0.098uA
64	948.6mV	0.100uA	953.9mV	0.068uA	942.3mV	0.065uA	958.4mV	0.046uA
65	937.2mV	0.099uA	942.8mV	0.066uA	953.1mV	0.058uA	957.0mV	0.047uA
66	946.0mV	0.062uA	940.0mV	0.063uA	946.4mV	0.068uA	940.4mV	0.104uA
67	938.8mV	0.107uA	951.6mV	0.098uA	940.1mV	0.097uA	940.0mV	0.073uA
68	949.1mV	0.059uA	949.6mV	0.073uA	957.1mV	0.060uA	939.2mV	0.047uA
69	955.2mV	0.073uA	951.5mV	0.102uA	949.1mV	0.057uA	955.6mV	0.074uA
70	957.8mV	0.089uA	944.3mV	0.072uA	959.5mV	0.083uA	948.0mV	0.088uA
71	938.8mV	0.077uA	939.1mV	0.065uA	950.7mV	0.045uA	947.3mV	0.076uA
72	959.1mV	0.084uA	953.1mV	0.082uA	954.8mV	0.098uA	951.5mV	0.106uA
73	943.1mV	0.055uA	940.0mV	0.098uA	957.6mV	0.049uA	946.7mV	0.072uA
74	939.0mV	0.106uA	937.4mV	0.106uA	955.0mV	0.092uA	955.2mV	0.105uA
75	947.4mV	0.069uA	950.9mV	0.050uA	951.4mV	0.093uA	956.3mV	0.100uA
76	940.8mV	0.046uA	947.6mV	0.056uA	938.6mV	0.106uA	939.2mV	0.090uA
77	949.5mV	0.079uA	940.2mV	0.071uA	947.2mV	0.092uA	949.9mV	0.082uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.07.07 ~ 2014.07.15
Test Standard : JESD22 STANDER Method-A102
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→＋		―→AC1		AC2→＋		―→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	943.1mV	0.061uA	942.3mV	0.095uA	939.9mV	0.099uA	938.7mV	0.050uA
2	949.1mV	0.091uA	942.2mV	0.079uA	940.9mV	0.093uA	945.1mV	0.096uA
3	941.4mV	0.064uA	939.5mV	0.101uA	952.0mV	0.101uA	946.8mV	0.052uA
4	955.5mV	0.089uA	951.2mV	0.085uA	951.0mV	0.091uA	942.5mV	0.071uA
5	948.1mV	0.100uA	944.5mV	0.098uA	951.0mV	0.092uA	940.6mV	0.108uA
6	957.3mV	0.101uA	946.0mV	0.062uA	956.5mV	0.097uA	947.5mV	0.059uA
7	937.3mV	0.061uA	949.5mV	0.092uA	958.9mV	0.049uA	941.9mV	0.070uA
8	944.2mV	0.087uA	959.1mV	0.051uA	944.2mV	0.095uA	953.8mV	0.083uA
9	958.5mV	0.079uA	945.5mV	0.050uA	950.0mV	0.081uA	947.2mV	0.101uA
10	944.7mV	0.106uA	939.7mV	0.063uA	953.5mV	0.107uA	946.5mV	0.059uA
11	959.0mV	0.046uA	943.4mV	0.073uA	940.8mV	0.074uA	938.1mV	0.077uA
12	942.8mV	0.062uA	948.6mV	0.069uA	940.0mV	0.081uA	954.5mV	0.108uA
13	939.8mV	0.101uA	942.3mV	0.082uA	947.8mV	0.057uA	959.0mV	0.073uA
14	955.1mV	0.106uA	944.5mV	0.063uA	948.0mV	0.066uA	947.7mV	0.079uA
15	950.1mV	0.075uA	946.8mV	0.076uA	947.6mV	0.060uA	949.0mV	0.073uA
16	938.3mV	0.093uA	959.9mV	0.053uA	957.5mV	0.109uA	952.3mV	0.083uA
17	953.2mV	0.054uA	945.1mV	0.059uA	952.5mV	0.102uA	941.0mV	0.100uA
18	940.8mV	0.082uA	958.0mV	0.057uA	950.6mV	0.082uA	950.0mV	0.107uA
19	958.0mV	0.096uA	952.2mV	0.103uA	957.4mV	0.100uA	944.4mV	0.049uA
20	955.5mV	0.069uA	940.2mV	0.090uA	959.6mV	0.088uA	940.7mV	0.057uA
21	938.9mV	0.067uA	959.9mV	0.083uA	938.4mV	0.097uA	956.3mV	0.110uA
22	943.2mV	0.107uA	954.0mV	0.094uA	956.1mV	0.080uA	949.2mV	0.069uA
23	941.9mV	0.087uA	940.0mV	0.055uA	953.7mV	0.079uA	947.2mV	0.047uA
24	942.3mV	0.107uA	958.3mV	0.064uA	955.6mV	0.071uA	954.2mV	0.061uA
25	954.1mV	0.051uA	959.6mV	0.055uA	954.3mV	0.088uA	941.8mV	0.057uA
26	940.9mV	0.105uA	953.0mV	0.082uA	947.2mV	0.071uA	947.7mV	0.054uA
27	941.1mV	0.084uA	953.7mV	0.058uA	948.1mV	0.093uA	938.1mV	0.063uA
28	941.7mV	0.070uA	944.8mV	0.049uA	953.1mV	0.064uA	937.7mV	0.071uA
29	955.7mV	0.079uA	948.2mV	0.078uA	953.6mV	0.055uA	952.2mV	0.088uA
30	952.5mV	0.059uA	947.1mV	0.071uA	938.6mV	0.087uA	941.6mV	0.075uA
31	943.4mV	0.080uA	954.5mV	0.078uA	941.9mV	0.052uA	951.5mV	0.088uA
32	958.3mV	0.086uA	953.4mV	0.105uA	949.4mV	0.099uA	959.5mV	0.077uA
33	953.7mV	0.086uA	946.9mV	0.081uA	938.8mV	0.052uA	949.9mV	0.106uA
34	951.1mV	0.109uA	938.2mV	0.102uA	944.1mV	0.089uA	952.9mV	0.085uA
35	944.2mV	0.101uA	953.2mV	0.093uA	940.1mV	0.061uA	954.4mV	0.056uA
36	942.3mV	0.104uA	957.8mV	0.067uA	958.3mV	0.105uA	958.9mV	0.055uA
37	939.6mV	0.087uA	944.0mV	0.090uA	942.3mV	0.086uA	953.1mV	0.074uA
38	956.1mV	0.083uA	940.9mV	0.097uA	948.9mV	0.108uA	958.9mV	0.105uA
39	943.8mV	0.091uA	940.2mV	0.102uA	952.3mV	0.060uA	956.8mV	0.063uA
40	943.9mV	0.055uA	958.5mV	0.046uA	951.2mV	0.106uA	950.6mV	0.105uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2014.07.07 ~ 2014.07.15
Test Standard : JESD22 STANDER Method-A102
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→+		—→AC1		AC2→+		—→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	940.3mV	0.048uA	945.5mV	0.056uA	958.5mV	0.099uA	938.0mV	0.096uA
42	954.0mV	0.047uA	944.2mV	0.101uA	937.6mV	0.089uA	945.5mV	0.096uA
43	938.8mV	0.074uA	950.2mV	0.094uA	954.8mV	0.049uA	951.9mV	0.105uA
44	947.4mV	0.066uA	939.2mV	0.068uA	949.6mV	0.065uA	942.2mV	0.085uA
45	949.6mV	0.092uA	939.9mV	0.067uA	955.9mV	0.094uA	944.2mV	0.085uA
46	946.4mV	0.077uA	944.0mV	0.075uA	955.2mV	0.048uA	941.6mV	0.059uA
47	942.9mV	0.046uA	953.3mV	0.079uA	953.6mV	0.065uA	947.1mV	0.081uA
48	955.7mV	0.060uA	959.2mV	0.077uA	953.7mV	0.047uA	941.6mV	0.103uA
49	938.8mV	0.051uA	946.5mV	0.099uA	945.8mV	0.049uA	947.0mV	0.068uA
50	950.2mV	0.090uA	944.2mV	0.109uA	939.0mV	0.107uA	952.4mV	0.053uA
51	945.3mV	0.045uA	944.7mV	0.076uA	952.6mV	0.091uA	959.6mV	0.072uA
52	945.7mV	0.055uA	947.3mV	0.049uA	959.0mV	0.096uA	955.0mV	0.073uA
53	959.1mV	0.090uA	948.1mV	0.054uA	956.1mV	0.065uA	950.5mV	0.083uA
54	942.1mV	0.081uA	940.5mV	0.067uA	946.0mV	0.108uA	959.2mV	0.054uA
55	943.9mV	0.070uA	949.2mV	0.060uA	948.1mV	0.064uA	958.0mV	0.093uA
56	959.3mV	0.046uA	939.8mV	0.066uA	950.0mV	0.083uA	958.2mV	0.108uA
57	955.3mV	0.070uA	941.4mV	0.109uA	952.9mV	0.067uA	954.4mV	0.099uA
58	956.5mV	0.054uA	938.0mV	0.060uA	938.4mV	0.099uA	947.8mV	0.051uA
59	946.3mV	0.089uA	942.4mV	0.092uA	943.5mV	0.071uA	938.8mV	0.092uA
60	952.0mV	0.109uA	946.3mV	0.047uA	939.5mV	0.099uA	957.1mV	0.081uA
61	946.2mV	0.054uA	941.9mV	0.096uA	959.7mV	0.090uA	956.8mV	0.092uA
62	940.7mV	0.100uA	944.6mV	0.063uA	955.6mV	0.062uA	953.8mV	0.052uA
63	948.6mV	0.082uA	956.9mV	0.091uA	939.5mV	0.109uA	938.8mV	0.084uA
64	957.3mV	0.081uA	938.4mV	0.050uA	958.7mV	0.097uA	950.3mV	0.060uA
65	951.9mV	0.046uA	953.5mV	0.046uA	948.0mV	0.106uA	955.6mV	0.058uA
66	942.6mV	0.070uA	940.9mV	0.073uA	940.0mV	0.046uA	945.6mV	0.106uA
67	939.9mV	0.074uA	945.9mV	0.066uA	953.5mV	0.057uA	939.1mV	0.057uA
68	943.0mV	0.104uA	937.4mV	0.101uA	940.6mV	0.048uA	954.8mV	0.093uA
69	959.8mV	0.057uA	939.8mV	0.065uA	954.8mV	0.105uA	958.2mV	0.087uA
70	938.4mV	0.053uA	951.7mV	0.067uA	955.5mV	0.090uA	951.8mV	0.105uA
71	943.1mV	0.078uA	941.2mV	0.067uA	948.8mV	0.087uA	942.1mV	0.068uA
72	956.0mV	0.057uA	959.7mV	0.106uA	941.7mV	0.071uA	938.4mV	0.063uA
73	946.2mV	0.050uA	953.1mV	0.109uA	951.3mV	0.071uA	951.5mV	0.079uA
74	940.2mV	0.061uA	940.0mV	0.094uA	941.5mV	0.106uA	954.6mV	0.090uA
75	956.9mV	0.073uA	947.9mV	0.075uA	938.4mV	0.102uA	958.5mV	0.102uA
76	955.7mV	0.057uA	940.0mV	0.107uA	943.6mV	0.068uA	948.8mV	0.050uA
77	946.3mV	0.088uA	943.2mV	0.050uA	941.5mV	0.078uA	941.9mV	0.065uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.07.01 ~ 2014.08.20
Test Standard : JESD22 STANDER Method-A104
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→＋		―→AC1		AC2→＋		―→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	943.6mV	0.068uA	949.4mV	0.104uA	950.8mV	0.056uA	941.0mV	0.090uA
2	953.5mV	0.051uA	949.3mV	0.106uA	939.4mV	0.103uA	947.1mV	0.058uA
3	953.5mV	0.106uA	951.6mV	0.063uA	952.1mV	0.075uA	955.1mV	0.076uA
4	938.3mV	0.074uA	954.4mV	0.067uA	949.0mV	0.067uA	944.0mV	0.057uA
5	949.0mV	0.082uA	944.7mV	0.074uA	955.1mV	0.065uA	945.6mV	0.093uA
6	937.6mV	0.090uA	945.9mV	0.107uA	941.6mV	0.051uA	959.9mV	0.104uA
7	958.8mV	0.081uA	953.2mV	0.090uA	940.8mV	0.055uA	938.3mV	0.059uA
8	957.9mV	0.048uA	949.5mV	0.046uA	958.7mV	0.064uA	959.0mV	0.106uA
9	947.9mV	0.086uA	952.8mV	0.072uA	946.5mV	0.098uA	943.6mV	0.109uA
10	943.8mV	0.083uA	959.1mV	0.105uA	949.2mV	0.094uA	957.3mV	0.053uA
11	937.2mV	0.067uA	942.8mV	0.096uA	943.1mV	0.046uA	940.7mV	0.094uA
12	955.8mV	0.084uA	940.3mV	0.099uA	951.2mV	0.081uA	945.2mV	0.085uA
13	955.6mV	0.055uA	958.1mV	0.084uA	949.2mV	0.069uA	940.0mV	0.087uA
14	956.2mV	0.069uA	944.1mV	0.096uA	955.6mV	0.088uA	948.5mV	0.101uA
15	951.0mV	0.058uA	942.2mV	0.065uA	955.7mV	0.054uA	955.2mV	0.076uA
16	940.8mV	0.081uA	944.0mV	0.058uA	941.7mV	0.057uA	957.9mV	0.061uA
17	940.9mV	0.065uA	940.4mV	0.110uA	937.2mV	0.098uA	958.8mV	0.077uA
18	943.6mV	0.052uA	939.3mV	0.108uA	956.6mV	0.047uA	941.5mV	0.086uA
19	945.9mV	0.054uA	955.6mV	0.077uA	953.7mV	0.079uA	956.1mV	0.107uA
20	957.6mV	0.045uA	958.2mV	0.069uA	952.2mV	0.087uA	956.4mV	0.064uA
21	959.6mV	0.100uA	959.4mV	0.068uA	946.3mV	0.061uA	945.2mV	0.066uA
22	938.0mV	0.074uA	955.6mV	0.062uA	948.4mV	0.100uA	953.4mV	0.061uA
23	959.7mV	0.069uA	949.0mV	0.082uA	941.4mV	0.080uA	944.7mV	0.059uA
24	959.2mV	0.101uA	947.0mV	0.105uA	944.1mV	0.060uA	958.9mV	0.098uA
25	958.5mV	0.065uA	947.4mV	0.059uA	938.7mV	0.059uA	951.7mV	0.099uA
26	941.9mV	0.059uA	943.9mV	0.099uA	950.2mV	0.076uA	938.1mV	0.096uA
27	957.3mV	0.064uA	938.1mV	0.073uA	958.2mV	0.059uA	942.2mV	0.054uA
28	954.5mV	0.054uA	951.1mV	0.052uA	937.2mV	0.066uA	941.0mV	0.109uA
29	954.8mV	0.104uA	954.4mV	0.104uA	945.1mV	0.062uA	950.2mV	0.081uA
30	939.1mV	0.075uA	956.7mV	0.085uA	949.6mV	0.080uA	947.6mV	0.109uA
31	959.0mV	0.105uA	940.4mV	0.107uA	945.4mV	0.097uA	948.4mV	0.059uA
32	958.9mV	0.083uA	952.9mV	0.052uA	945.4mV	0.066uA	956.8mV	0.094uA
33	954.6mV	0.076uA	938.0mV	0.100uA	951.6mV	0.066uA	953.6mV	0.090uA
34	939.0mV	0.066uA	938.7mV	0.089uA	945.2mV	0.055uA	951.4mV	0.093uA
35	946.5mV	0.097uA	954.1mV	0.054uA	959.0mV	0.046uA	939.7mV	0.081uA
36	948.3mV	0.093uA	945.8mV	0.057uA	943.2mV	0.069uA	941.1mV	0.101uA
37	945.1mV	0.087uA	955.9mV	0.089uA	938.6mV	0.102uA	943.8mV	0.066uA
38	947.8mV	0.091uA	952.2mV	0.078uA	942.3mV	0.098uA	944.9mV	0.060uA
39	944.7mV	0.065uA	943.3mV	0.056uA	939.6mV	0.091uA	943.8mV	0.056uA
40	937.9mV	0.103uA	953.7mV	0.076uA	941.7mV	0.070uA	939.2mV	0.104uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2014.07.01 ~ 2014.08.20
Test Standard : JESD22 STANDER Method-A104
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→＋		—→AC1		AC2→＋		—→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	953.5mV	0.100uA	947.8mV	0.054uA	939.3mV	0.055uA	944.9mV	0.098uA
42	959.7mV	0.106uA	945.8mV	0.051uA	943.1mV	0.089uA	946.8mV	0.071uA
43	945.7mV	0.105uA	948.5mV	0.090uA	948.8mV	0.076uA	940.5mV	0.052uA
44	949.3mV	0.095uA	957.5mV	0.056uA	943.7mV	0.082uA	945.4mV	0.092uA
45	949.3mV	0.070uA	956.9mV	0.067uA	957.7mV	0.054uA	956.3mV	0.054uA
46	937.9mV	0.090uA	940.9mV	0.102uA	947.1mV	0.062uA	958.5mV	0.084uA
47	955.3mV	0.088uA	959.3mV	0.078uA	943.3mV	0.109uA	953.3mV	0.096uA
48	957.7mV	0.079uA	949.6mV	0.079uA	956.8mV	0.090uA	959.6mV	0.092uA
49	959.6mV	0.072uA	958.0mV	0.049uA	951.0mV	0.104uA	950.8mV	0.049uA
50	938.7mV	0.080uA	953.8mV	0.087uA	945.8mV	0.082uA	951.3mV	0.063uA
51	937.1mV	0.047uA	949.0mV	0.068uA	957.6mV	0.065uA	956.3mV	0.098uA
52	944.9mV	0.099uA	945.1mV	0.109uA	951.0mV	0.073uA	943.5mV	0.066uA
53	957.3mV	0.072uA	945.8mV	0.078uA	955.9mV	0.103uA	938.7mV	0.110uA
54	947.0mV	0.100uA	958.2mV	0.066uA	939.6mV	0.051uA	952.5mV	0.091uA
55	947.4mV	0.070uA	954.4mV	0.058uA	953.7mV	0.098uA	956.9mV	0.064uA
56	938.6mV	0.102uA	945.8mV	0.099uA	946.6mV	0.065uA	944.4mV	0.078uA
57	947.6mV	0.062uA	944.4mV	0.103uA	942.8mV	0.046uA	955.7mV	0.052uA
58	941.8mV	0.107uA	939.5mV	0.103uA	951.0mV	0.076uA	947.3mV	0.089uA
59	955.0mV	0.051uA	958.9mV	0.071uA	954.3mV	0.052uA	943.5mV	0.080uA
60	940.9mV	0.072uA	939.4mV	0.045uA	947.5mV	0.053uA	954.9mV	0.105uA
61	939.8mV	0.107uA	949.8mV	0.046uA	955.3mV	0.063uA	945.6mV	0.091uA
62	944.3mV	0.061uA	944.1mV	0.087uA	959.1mV	0.102uA	958.2mV	0.092uA
63	939.6mV	0.079uA	956.8mV	0.059uA	951.6mV	0.055uA	939.1mV	0.046uA
64	955.5mV	0.052uA	957.8mV	0.071uA	942.4mV	0.095uA	938.6mV	0.099uA
65	959.8mV	0.093uA	944.3mV	0.054uA	958.0mV	0.101uA	951.3mV	0.082uA
66	959.9mV	0.049uA	948.0mV	0.052uA	955.9mV	0.096uA	959.8mV	0.068uA
67	938.9mV	0.047uA	937.4mV	0.071uA	958.1mV	0.095uA	950.7mV	0.085uA
68	944.2mV	0.092uA	938.9mV	0.086uA	941.9mV	0.057uA	959.4mV	0.054uA
69	944.7mV	0.097uA	937.2mV	0.054uA	955.9mV	0.110uA	943.9mV	0.096uA
70	955.1mV	0.091uA	940.9mV	0.097uA	945.3mV	0.054uA	953.1mV	0.095uA
71	959.2mV	0.102uA	940.6mV	0.097uA	940.0mV	0.101uA	943.6mV	0.092uA
72	949.4mV	0.047uA	945.5mV	0.073uA	938.8mV	0.107uA	945.9mV	0.052uA
73	953.4mV	0.061uA	949.7mV	0.048uA	940.9mV	0.049uA	957.8mV	0.050uA
74	955.6mV	0.084uA	940.6mV	0.108uA	957.8mV	0.063uA	957.6mV	0.049uA
75	955.2mV	0.068uA	939.1mV	0.070uA	952.0mV	0.068uA	949.7mV	0.081uA
76	953.5mV	0.101uA	938.8mV	0.066uA	954.5mV	0.094uA	944.3mV	0.051uA
77	944.7mV	0.098uA	945.2mV	0.090uA	955.3mV	0.055uA	954.4mV	0.061uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A101
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→+		—→AC1		AC2→+		—→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	958.2mV	0.096uA	954.2mV	0.076uA	955.3mV	0.076uA	950.1mV	0.074uA
2	947.9mV	0.050uA	957.0mV	0.059uA	942.3mV	0.076uA	945.9mV	0.058uA
3	949.7mV	0.090uA	939.8mV	0.053uA	949.4mV	0.074uA	953.4mV	0.095uA
4	937.2mV	0.101uA	950.6mV	0.063uA	941.4mV	0.093uA	959.7mV	0.083uA
5	953.2mV	0.102uA	958.5mV	0.066uA	938.5mV	0.088uA	944.7mV	0.083uA
6	945.6mV	0.065uA	942.5mV	0.053uA	946.0mV	0.105uA	955.1mV	0.061uA
7	951.7mV	0.107uA	946.9mV	0.087uA	954.2mV	0.069uA	957.1mV	0.096uA
8	955.2mV	0.050uA	939.6mV	0.090uA	939.9mV	0.050uA	943.9mV	0.096uA
9	946.1mV	0.057uA	939.7mV	0.105uA	945.0mV	0.059uA	949.9mV	0.104uA
10	952.7mV	0.050uA	955.7mV	0.106uA	959.9mV	0.053uA	938.4mV	0.071uA
11	953.7mV	0.110uA	939.9mV	0.079uA	944.9mV	0.050uA	950.1mV	0.059uA
12	947.0mV	0.081uA	943.5mV	0.075uA	945.8mV	0.048uA	953.2mV	0.077uA
13	948.1mV	0.102uA	945.4mV	0.070uA	956.7mV	0.093uA	940.1mV	0.078uA
14	953.7mV	0.068uA	959.6mV	0.101uA	939.5mV	0.057uA	940.3mV	0.051uA
15	953.2mV	0.076uA	949.6mV	0.075uA	939.5mV	0.053uA	950.0mV	0.090uA
16	957.7mV	0.082uA	942.7mV	0.053uA	958.7mV	0.079uA	949.5mV	0.110uA
17	940.5mV	0.096uA	945.9mV	0.072uA	958.4mV	0.083uA	951.5mV	0.093uA
18	947.7mV	0.047uA	946.6mV	0.090uA	949.3mV	0.064uA	955.5mV	0.096uA
19	937.1mV	0.096uA	957.3mV	0.104uA	938.5mV	0.056uA	944.8mV	0.060uA
20	951.3mV	0.075uA	941.2mV	0.054uA	938.8mV	0.066uA	941.8mV	0.071uA
21	938.9mV	0.080uA	937.5mV	0.094uA	941.7mV	0.071uA	951.5mV	0.076uA
22	953.2mV	0.061uA	956.2mV	0.097uA	954.0mV	0.102uA	947.3mV	0.070uA
23	948.6mV	0.101uA	956.0mV	0.085uA	937.7mV	0.051uA	955.5mV	0.071uA
24	939.5mV	0.107uA	956.9mV	0.051uA	959.2mV	0.061uA	943.9mV	0.063uA
25	954.4mV	0.081uA	940.2mV	0.047uA	942.4mV	0.110uA	942.1mV	0.079uA
26	955.0mV	0.061uA	946.6mV	0.056uA	953.8mV	0.084uA	948.9mV	0.059uA
27	951.8mV	0.087uA	950.0mV	0.058uA	938.2mV	0.051uA	957.7mV	0.049uA
28	956.2mV	0.079uA	948.1mV	0.091uA	950.7mV	0.109uA	952.2mV	0.097uA
29	952.5mV	0.095uA	950.3mV	0.076uA	948.8mV	0.092uA	949.4mV	0.097uA
30	958.5mV	0.070uA	945.1mV	0.054uA	940.2mV	0.081uA	941.7mV	0.051uA
31	958.7mV	0.058uA	956.2mV	0.094uA	937.5mV	0.107uA	937.8mV	0.049uA
32	944.0mV	0.070uA	947.9mV	0.048uA	952.2mV	0.050uA	959.6mV	0.068uA
33	949.7mV	0.053uA	938.8mV	0.063uA	942.6mV	0.086uA	943.9mV	0.089uA
34	937.3mV	0.055uA	938.3mV	0.058uA	939.5mV	0.071uA	952.4mV	0.064uA
35	959.0mV	0.046uA	958.0mV	0.081uA	941.2mV	0.083uA	942.8mV	0.086uA
36	957.7mV	0.099uA	938.1mV	0.080uA	958.4mV	0.089uA	955.2mV	0.078uA
37	956.9mV	0.053uA	946.1mV	0.064uA	959.8mV	0.069uA	959.2mV	0.076uA
38	948.3mV	0.070uA	942.0mV	0.055uA	939.9mV	0.064uA	944.8mV	0.069uA
39	939.7mV	0.075uA	940.0mV	0.082uA	939.8mV	0.072uA	956.3mV	0.086uA
40	940.3mV	0.081uA	952.2mV	0.093uA	959.1mV	0.091uA	959.3mV	0.076uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2014.07.01 ~ 2014.08.13
Test Standard : JESD22 STANDER Method-A101
Operator: Leo Hsia
Test Result: PASS

No	Before				After			
	AC2→+		−→AC1		AC2→+		−→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
41	937.7mV	0.060uA	952.7mV	0.076uA	943.3mV	0.075uA	948.0mV	0.103uA
42	952.2mV	0.068uA	956.6mV	0.075uA	951.2mV	0.078uA	942.3mV	0.073uA
43	953.9mV	0.097uA	958.3mV	0.055uA	958.6mV	0.104uA	954.9mV	0.086uA
44	937.6mV	0.079uA	954.5mV	0.090uA	937.6mV	0.091uA	940.2mV	0.070uA
45	948.2mV	0.089uA	958.4mV	0.077uA	955.7mV	0.104uA	953.0mV	0.052uA
46	944.1mV	0.060uA	948.5mV	0.100uA	938.0mV	0.103uA	942.5mV	0.068uA
47	953.8mV	0.100uA	951.6mV	0.045uA	945.1mV	0.049uA	938.3mV	0.070uA
48	942.3mV	0.047uA	937.1mV	0.059uA	951.1mV	0.105uA	940.2mV	0.053uA
49	941.8mV	0.082uA	956.3mV	0.061uA	959.3mV	0.089uA	941.6mV	0.062uA
50	944.3mV	0.094uA	948.2mV	0.079uA	954.3mV	0.094uA	942.0mV	0.105uA
51	953.8mV	0.086uA	947.0mV	0.057uA	957.9mV	0.070uA	942.9mV	0.069uA
52	954.0mV	0.074uA	944.4mV	0.090uA	957.1mV	0.092uA	943.0mV	0.082uA
53	956.3mV	0.071uA	941.5mV	0.104uA	957.8mV	0.110uA	942.8mV	0.055uA
54	949.7mV	0.078uA	943.4mV	0.071uA	949.4mV	0.070uA	945.6mV	0.088uA
55	944.3mV	0.098uA	944.6mV	0.066uA	952.6mV	0.091uA	938.8mV	0.051uA
56	938.7mV	0.106uA	952.2mV	0.075uA	952.3mV	0.056uA	941.0mV	0.073uA
57	953.0mV	0.079uA	945.5mV	0.047uA	952.9mV	0.074uA	953.3mV	0.088uA
58	957.4mV	0.102uA	959.0mV	0.101uA	954.6mV	0.107uA	944.8mV	0.099uA
59	947.8mV	0.068uA	948.5mV	0.074uA	951.0mV	0.067uA	954.9mV	0.051uA
60	951.9mV	0.088uA	945.7mV	0.079uA	959.1mV	0.078uA	942.9mV	0.093uA
61	955.9mV	0.064uA	940.5mV	0.092uA	944.5mV	0.081uA	956.1mV	0.072uA
62	940.1mV	0.059uA	950.0mV	0.102uA	949.5mV	0.056uA	957.9mV	0.049uA
63	954.9mV	0.053uA	949.7mV	0.082uA	940.8mV	0.082uA	954.0mV	0.061uA
64	949.4mV	0.075uA	938.7mV	0.057uA	953.2mV	0.053uA	959.8mV	0.088uA
65	952.4mV	0.057uA	948.1mV	0.089uA	941.9mV	0.079uA	945.9mV	0.096uA
66	956.9mV	0.055uA	950.3mV	0.079uA	941.9mV	0.071uA	946.5mV	0.059uA
67	948.6mV	0.067uA	957.2mV	0.063uA	949.4mV	0.069uA	950.3mV	0.096uA
68	942.6mV	0.063uA	959.8mV	0.085uA	947.9mV	0.056uA	959.2mV	0.103uA
69	953.0mV	0.096uA	938.1mV	0.099uA	950.0mV	0.066uA	940.1mV	0.099uA
70	959.4mV	0.073uA	959.5mV	0.095uA	944.4mV	0.069uA	957.4mV	0.103uA
71	956.7mV	0.060uA	942.0mV	0.061uA	958.5mV	0.078uA	949.5mV	0.050uA
72	941.8mV	0.082uA	958.5mV	0.077uA	955.6mV	0.051uA	938.0mV	0.059uA
73	957.4mV	0.066uA	958.8mV	0.061uA	938.8mV	0.091uA	939.6mV	0.085uA
74	948.4mV	0.109uA	945.1mV	0.090uA	952.0mV	0.046uA	945.3mV	0.102uA
75	957.4mV	0.081uA	951.6mV	0.106uA	950.5mV	0.068uA	939.4mV	0.074uA
76	939.0mV	0.093uA	957.8mV	0.092uA	943.4mV	0.094uA	956.9mV	0.075uA
77	959.2mV	0.103uA	948.5mV	0.102uA	950.7mV	0.076uA	959.8mV	0.065uA

Made By: Leo Hsia

Approval: Peter Yang

SeCoS Corporation

Solderability Test Data

Report No : T140820-002
Part No : DB1507
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1100mV@IF=1.5A, IR<10uA@VR=1000V
Test Condition: 270℃ ± 5℃, 7 Sec ± 2Sec
Test Date: 2014.08.20 ~ 2014.08.20
Test Standard : JESD22 STANDER Method-A106
Operator: Leo Hsia

Test Result: PASS

No	Before				After			
	AC2→＋		−→AC1		AC2→＋		−→AC1	
	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)	VF (mV)	IR (uA)
1	950.3mV	0.076uA	949.2mV	0.105uA	943.7mV	0.061uA	954.5mV	0.073uA
2	953.2mV	0.064uA	944.0mV	0.079uA	959.3mV	0.055uA	939.2mV	0.079uA
3	944.5mV	0.084uA	943.1mV	0.088uA	945.9mV	0.066uA	952.4mV	0.098uA
4	954.6mV	0.090uA	945.9mV	0.050uA	951.3mV	0.101uA	953.8mV	0.091uA
5	940.6mV	0.104uA	957.4mV	0.079uA	950.9mV	0.059uA	945.0mV	0.106uA
6	949.3mV	0.084uA	942.0mV	0.074uA	944.9mV	0.076uA	958.1mV	0.081uA
7	959.5mV	0.106uA	938.1mV	0.082uA	952.1mV	0.088uA	957.1mV	0.068uA
8	949.5mV	0.103uA	950.6mV	0.058uA	955.6mV	0.052uA	939.0mV	0.089uA
9	954.0mV	0.105uA	958.1mV	0.045uA	952.7mV	0.088uA	955.6mV	0.070uA
10	958.5mV	0.047uA	938.9mV	0.093uA	952.6mV	0.078uA	955.0mV	0.104uA

Made By: Leo Hsia

Approval: Peter Yang

簽名有效

For Question,
Please Contact with SGS
www.tw.sgs.com

Test Report

No. : CE/2013/A2454 Date : 2013/10/22 Page : 1 of 16

SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

Sample Submitted By	:	SECOS CORPORATION
Sample Description	:	BRIDGE RECTIFIER
Style/Item No.	:	EBS、DB-1、DB-1S、DB-1SA、DFS、GBPC、JB、MBS、MDS、TBS、TMB
Other Info.	:	NON-HALOGEN FREE
Sample Receiving Date	:	2013/10/15
Testing Period	:	2013/10/15 TO 2013/10/22

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Test Result(s) : Please refer to next page(s).

Troy Chang/ Manager-Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Test Result(s)

PART NAME No.1 : MIXED BODY
PART NAME No.2 : MIXED SILVER COLORED METAL (INCLUDING THE PLATING LAYER)

Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	20600	9410
Mercury (Hg)	mg/kg	With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.	---
	**	With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.#	#	---	Negative
Antimony (Sb)	mg/kg	With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	949	---
Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	---
PFOA (CAS No.: 335-67-1)	mg/kg	With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	---
Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	mg/kg	With reference to Global SOP RSTS-E&E-121. Analysis was performed by LC/MS.	10	n.d.	---
Dimethyl Fumarate (CAS No.: 624-49-7)	mg/kg	With reference to US EPA 3550C method. Analysis was performed by GC/MS.	0.1	n.d.	---

SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β- HBCDD, γ- HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.	---
BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	---
DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	---
DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
Halogen					
Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	---
Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg		50	119	---
Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg		50	4120	---
Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n.d.	---

SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Sum of PBBs	mg/kg	With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	n.d.
Monobromobiphenyl	mg/kg		5	n.d.	n.d.
Dibromobiphenyl	mg/kg		5	n.d.	n.d.
Tribromobiphenyl	mg/kg		5	n.d.	n.d.
Tetrabromobiphenyl	mg/kg		5	n.d.	n.d.
Pentabromobiphenyl	mg/kg		5	n.d.	n.d.
Hexabromobiphenyl	mg/kg		5	n.d.	n.d.
Heptabromobiphenyl	mg/kg		5	n.d.	n.d.
Octabromobiphenyl	mg/kg		5	n.d.	n.d.
Nonabromobiphenyl	mg/kg		5	n.d.	n.d.
Decabromobiphenyl	mg/kg		5	n.d.	n.d.
Sum of PBDEs	mg/kg		-	n.d.	n.d.
Monobromodiphenyl ether	mg/kg		5	n.d.	n.d.
Dibromodiphenyl ether	mg/kg		5	n.d.	n.d.
Tribromodiphenyl ether	mg/kg		5	n.d.	n.d.
Tetrabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Pentabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Hexabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Heptabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Octabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Nonabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Decabromodiphenyl ether	mg/kg		5	n.d.	n.d.

Note :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated
5. "---" = Not Conducted
6. ** = Qualitative analysis (No Unit)
7. # = a. Positive means the presence of CrVI on the tested areas
   b. Negative means the absence of CrVI on the tested areas
   The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 tested areas.

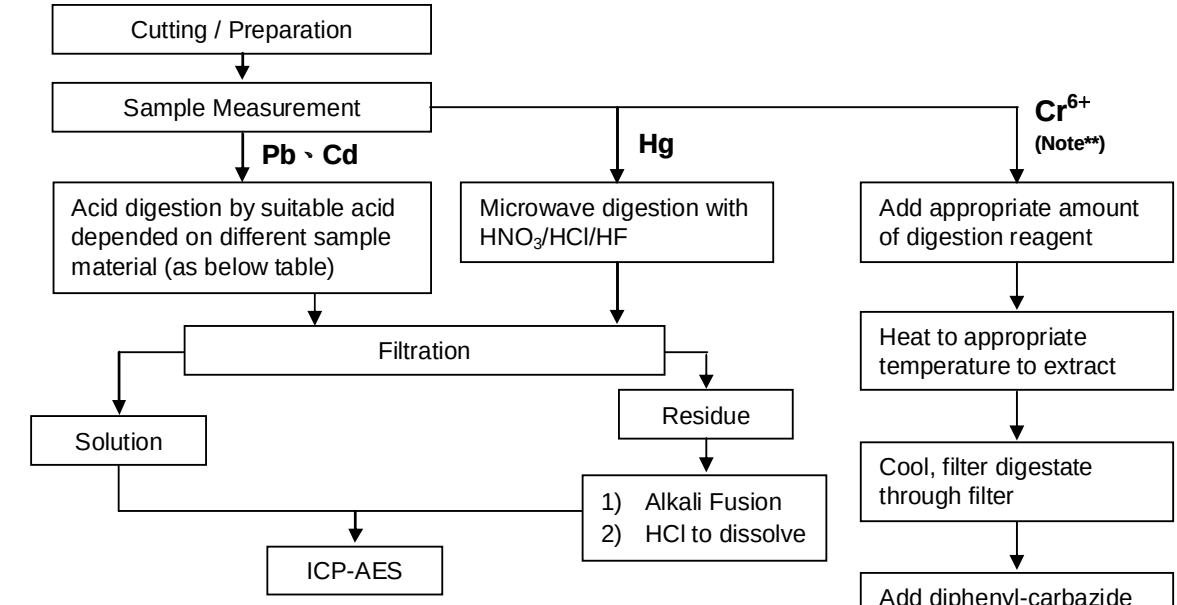
8. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.

PFOS Reference Information : POPs - (EU) 757/2010

Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above 1µg/m².

SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)
2) Name of the person who made measurement: Climbgreat Yang
3) Name of the person in charge of measurement: Troy Chang

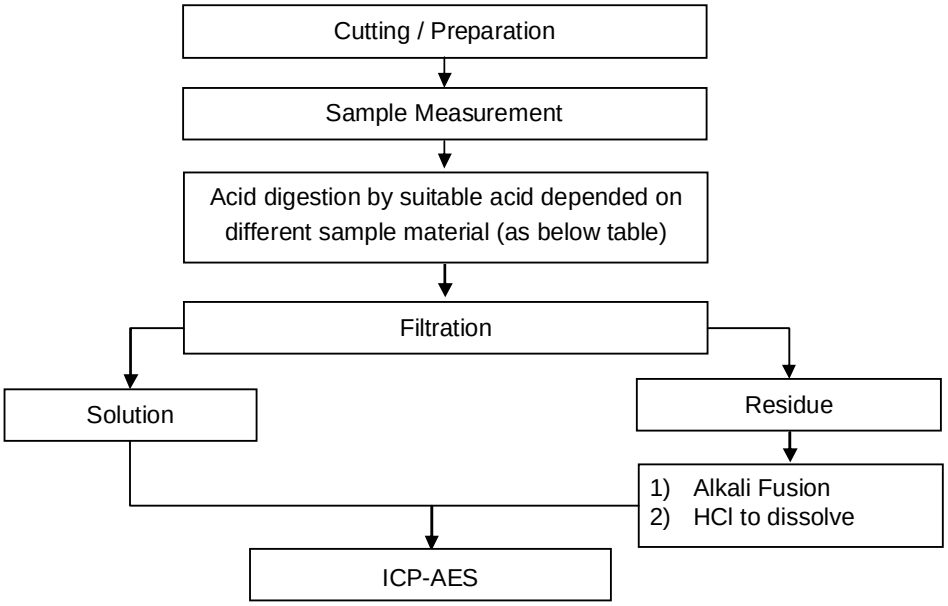


Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Added appropriate reagent to total digestion

Note :** (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95℃.
(2) For metallic material, add pure water and heat to boiling.

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
2) Name of the person who made measurement: Climbgreat Yang
3) Name of the person in charge of measurement: Troy Chang

Flow Chart of digestion for the elements analysis performed by ICP-AES



Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Added appropriate reagent to total digestion

SECOS CORPORATION *CE/2013/A2454*

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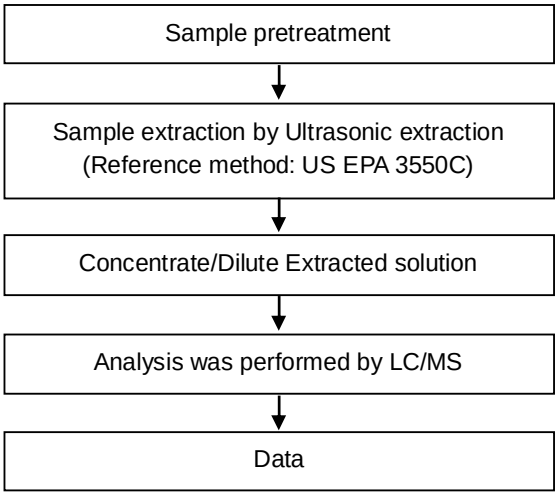
PFOA/PFOS analytical flow chart of Ultrasonic extraction (LC/MS) procedure

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang

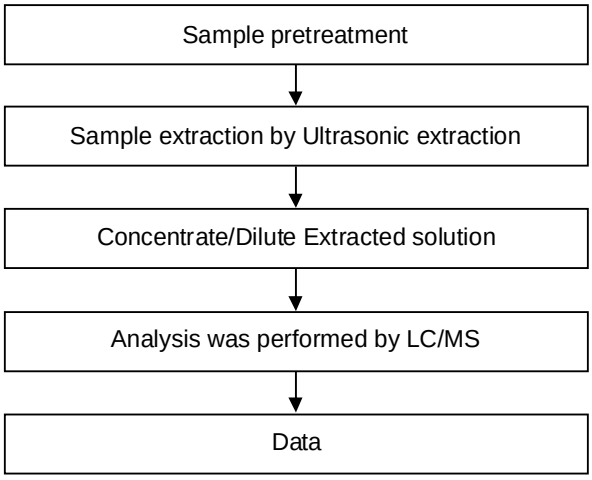


SECOS CORPORATION *CE/2013/A2454*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

TBBP-A analytical flow chart

- Name of the person who made measurement: Ginny Chen
- Name of the person in charge of measurement: Troy Chang

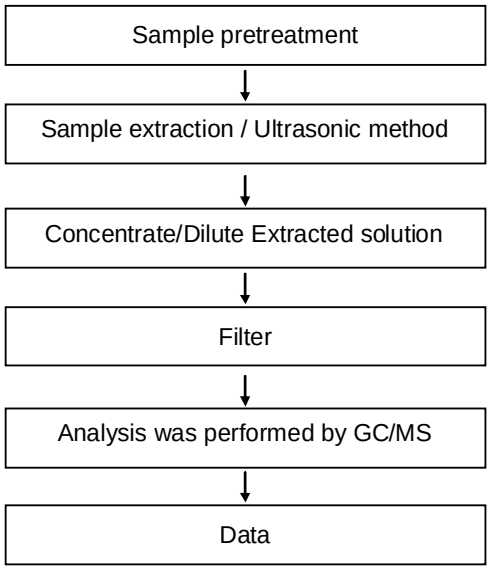


SECOS CORPORATION *CE/2013/A2454*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Dimethyl Fumarate analytical flow chart

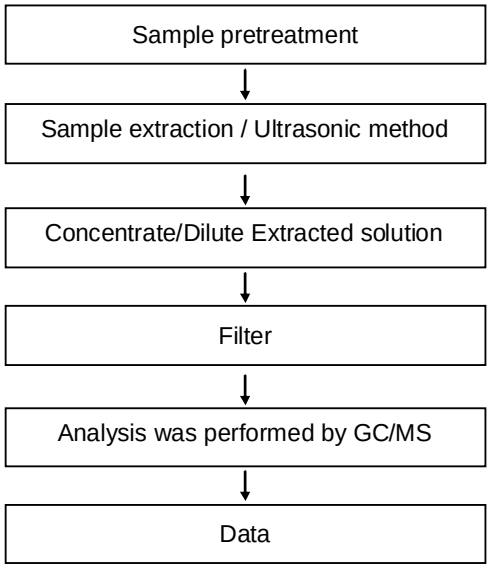
- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



SECOS CORPORATION *CE/2013/A2454*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

HBCDD analytical flow chart

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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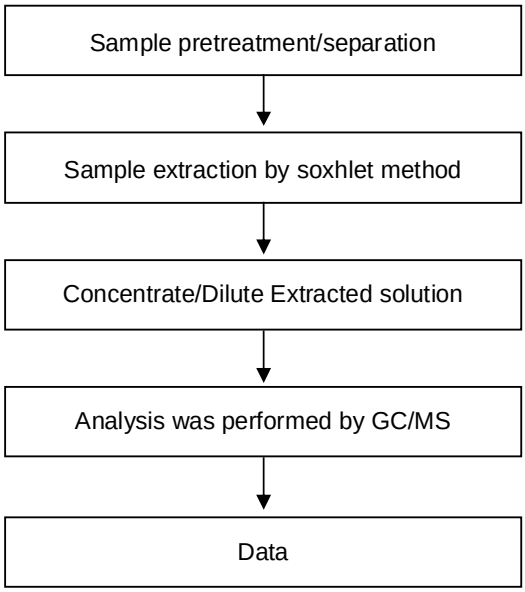
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Analytical flow chart of phthalate content

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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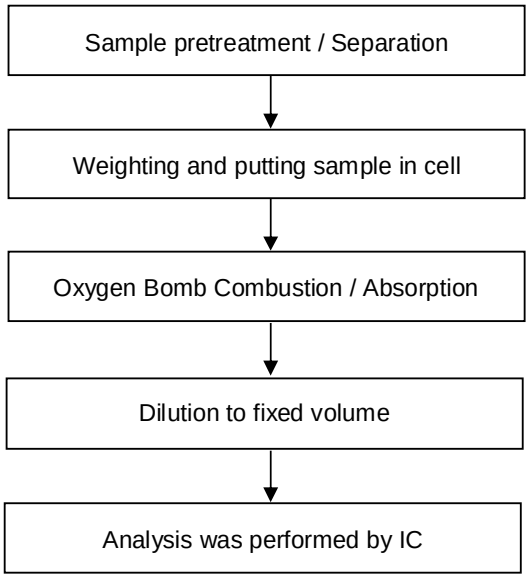
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Analytical flow chart of halogen content

- Name of the person who made measurement: Rita Chen
- Name of the person in charge of measurement: Troy Chang

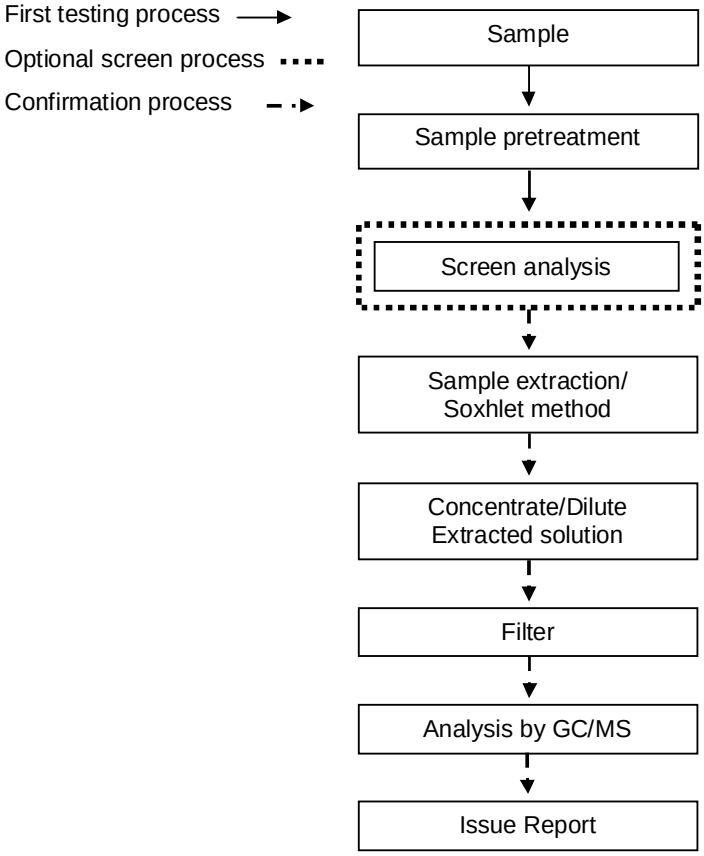


SECOS CORPORATION *CE/2013/A2454*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

PBB/PBDE analytical FLOW CHART

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



SECOS CORPORATION *CE/2013/A2454*

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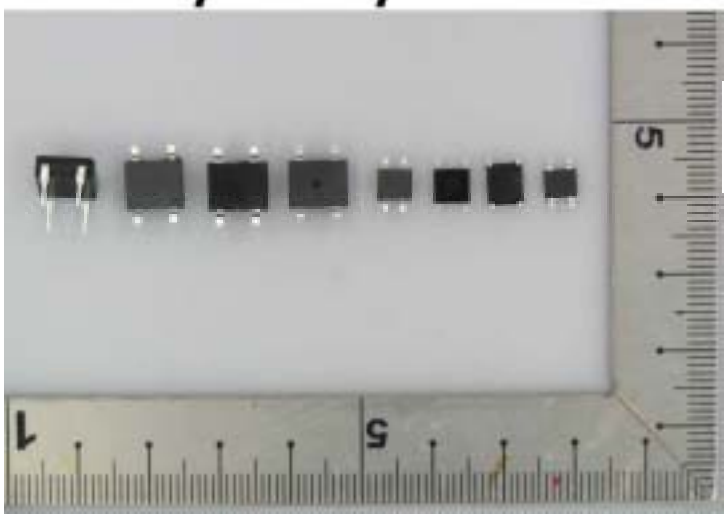
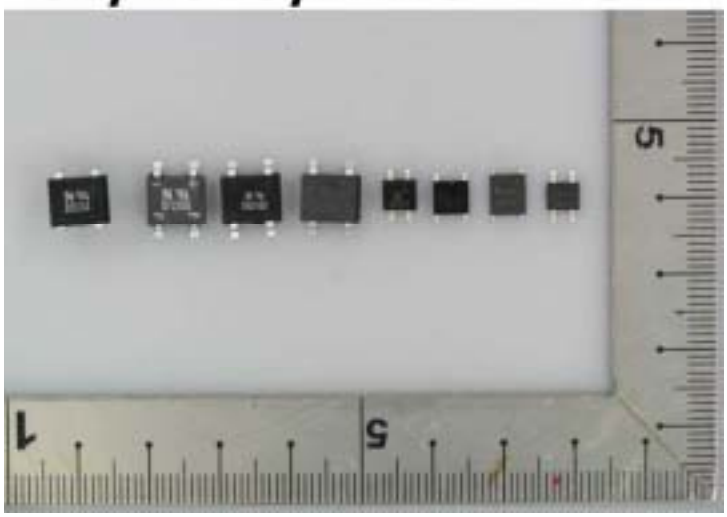
*** The tested sample / part is marked by an arrow if it's shown on the photo. ***

CE/2013/A2454

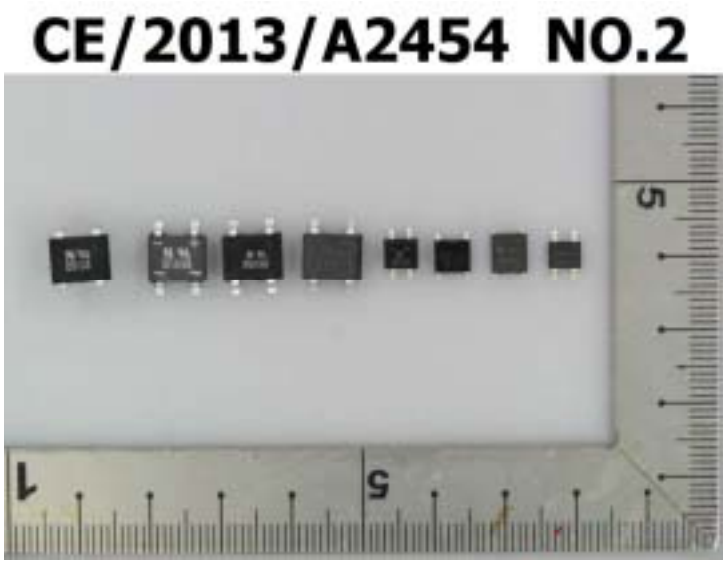


CE/2013/A2454 NO.1



SECOS CORPORATION *CE/2013/A2454*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN



** End of Report **

簽名有效

For Question,
Please Contact with SGS
www.tw.sgs.com

Test Report

No. : CE/2013/A2450 Date : 2013/10/22 Page : 1 of 22

SECOS CORPORATION *CE/2013/A2450*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

Sample Submitted By	:	SECOS CORPORATION
Sample Description	:	BRIDGE RECTIFIER
Style/Item No.	:	EBS、DB-1、DB-1S、DB-1SA、DFS、GBJ、GBL、GBP、GBPC、GBU、GVB、JB、KBJ、KBP、MBS、MDS、TBS、TMB
Other Info.	:	HALOGEN FREE
Sample Receiving Date	:	2013/10/15
Testing Period	:	2013/10/15 TO 2013/10/22

==========

Test Result(s) : Please refer to next page(s).

Troy Chang / Manager-Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

SECOS CORPORATION *CE/2013/A2450*
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

Test Result(s)

PART NAME No.1 : MIXED BODY
PART NAME No.2 : MIXED SILVER COLORED METAL (INCLUDING THE PLATING LAYER)

Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	15400	15
Mercury (Hg)	mg/kg	With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.	---
	**	With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.#	#	---	Negative
Antimony (Sb)	mg/kg	With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	31	---
Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	---
PFOA (CAS No.: 335-67-1)	mg/kg	With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	---
Polychlorinated Biphenyls (PCBs) (CAS No.: 1336-36-3)	mg/kg	With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	---
Polychlorinated Terphenyls (PCTs)	mg/kg	With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	---
Polychlorinated Naphthalene (PCNs)	mg/kg	With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	---
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	mg/kg	With reference to US EPA 3540C method. Analysis was performed by GC/MS.	100	n.d.	---
Dimethyl Fumarate (CAS No.: 624-49-7)	mg/kg	With reference to US EPA 3550C method. Analysis was performed by GC/MS.	0.1	n.d.	---

SECOS CORPORATION *CE/2013/A2450*
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Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β- HBCDD, γ- HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.	---
Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	mg/kg	With reference to Global SOP RSTS-E&E-121. Analysis was performed by LC/MS.	10	n.d.	---
BBP (Benzyl butyl phthalate) (CAS No.: 85-68-7)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	---
DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.01	n.d.	---
DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	%	With reference to EN 14372. Analysis was performed by GC/MS.	0.003	n.d.	---
Halogen					
Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	---
Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg		50	67	---
Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg		50	n.d.	---
Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n.d.	---

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Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Polynuclear Aromatic Hydrocarbons (PAHs)					
Acenaphthene (CAS No.: 83-32-9)	mg/kg	With reference to ZLS standard ZEK 01.4-08 method. Analysis was performed by GC/MS.	0.2	n.d.	---
Acenaphthylene (CAS No.: 208-96-8)	mg/kg		0.2	n.d.	---
Anthracene (CAS No.: 120-12-7)	mg/kg		0.2	n.d.	---
Benzo[a]anthracene (CAS No.: 56-55-3)	mg/kg		0.2	n.d.	---
Benzo[a]pyrene (CAS No.: 50-32-8)	mg/kg		0.2	n.d.	---
Benzo[b]fluoranthene (CAS No.: 205-99-2)	mg/kg		0.2	n.d.	---
Benzo[g,h,i]perylene (CAS No.: 191-24-2)	mg/kg		0.2	n.d.	---
Benzo[k]fluoranthene (CAS No.: 207-08-9)	mg/kg		0.2	n.d.	---
Chrysene (CAS No.: 218-01-9)	mg/kg		0.2	n.d.	---
Dibenzo[a,h]anthracene (CAS No.: 53-70-3)	mg/kg		0.2	n.d.	---
Fluoranthene (CAS No.: 206-44-0)	mg/kg		0.2	n.d.	---
Fluorene (CAS No.: 86-73-7)	mg/kg		0.2	n.d.	---
Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5)	mg/kg		0.2	n.d.	---
Naphthalene (CAS No.: 91-20-3)	mg/kg		0.2	n.d.	---
Phenanthrene (CAS No.: 85-01-8)	mg/kg		0.2	n.d.	---
Pyrene (CAS No.: 129-00-0)	mg/kg		0.2	n.d.	---
Benzo[j]fluoranthene (CAS No.: 205-82-3)	mg/kg		0.2	n.d.	---
Benzo[e]pyrene (CAS No.: 192-97-2)	mg/kg		0.2	n.d.	---
Sum of 18 PAHs	mg/kg		-	n.d.	---

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Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Sum of PBBs	mg/kg	With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	n.d.
Monobromobiphenyl	mg/kg		5	n.d.	n.d.
Dibromobiphenyl	mg/kg		5	n.d.	n.d.
Tribromobiphenyl	mg/kg		5	n.d.	n.d.
Tetrabromobiphenyl	mg/kg		5	n.d.	n.d.
Pentabromobiphenyl	mg/kg		5	n.d.	n.d.
Hexabromobiphenyl	mg/kg		5	n.d.	n.d.
Heptabromobiphenyl	mg/kg		5	n.d.	n.d.
Octabromobiphenyl	mg/kg		5	n.d.	n.d.
Nonabromobiphenyl	mg/kg		5	n.d.	n.d.
Decabromobiphenyl	mg/kg		5	n.d.	n.d.
Sum of PBDEs	mg/kg		-	n.d.	n.d.
Monobromodiphenyl ether	mg/kg		5	n.d.	n.d.
Dibromodiphenyl ether	mg/kg		5	n.d.	n.d.
Tribromodiphenyl ether	mg/kg		5	n.d.	n.d.
Tetrabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Pentabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Hexabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Heptabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Octabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Nonabromodiphenyl ether	mg/kg		5	n.d.	n.d.
Decabromodiphenyl ether	mg/kg		5	n.d.	n.d.

Note：

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated
5. "---" = Not Conducted
6. ** = Qualitative analysis (No Unit)
7. # = a. Positive means the presence of CrVI on the tested areas
   b. Negative means the absence of CrVI on the tested areas
   The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 tested areas.
8. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.

Reference information for PAHs:
Requirement of ZEK 01.4-08 : Restraining maximum values for products

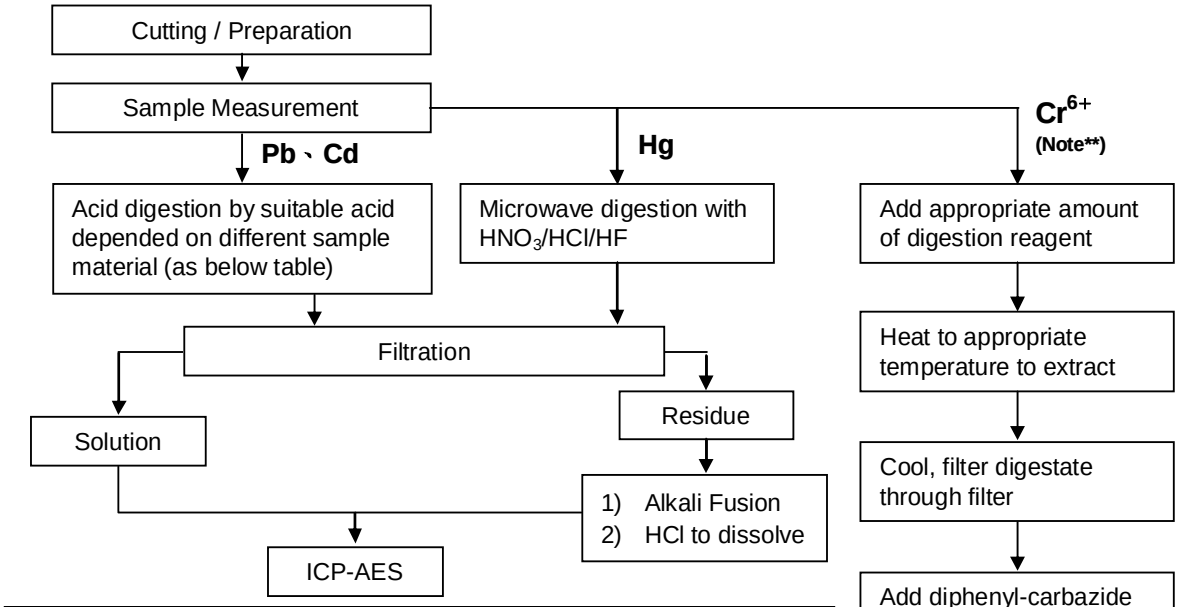
Parameter	Category 1	Category 2	Category 3
	Material indented to be put in the mouth or toys for children aged < 36 months with intended skin contact.	Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin contact).	Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).
Benzo[a]pyrene (mg/kg)	<MDL (<0.2)**	1	20
Sum of 18 PAH (mg/kg)*	<MDL (<0.2)**	10	200

Remark :
* = Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs
** = If the limits of category 1 are surpassed but the limits of category 2 still met, the confirmation of suitability of contact with foodstuff or the oral mucosa can be verified by an additional specific migration test of the PAH components according to EN 1186 ff. and § 64 LFBG 80.30-1. The results of the migration test shall be evaluated according to law criteria for foodstuff.

PFOS Reference Information : POPs - (EU) 757/2010

Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above 1µ g/m².

1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)
2) Name of the person who made measurement: Climbgreat Yang
3) Name of the person in charge of measurement: Troy Chang

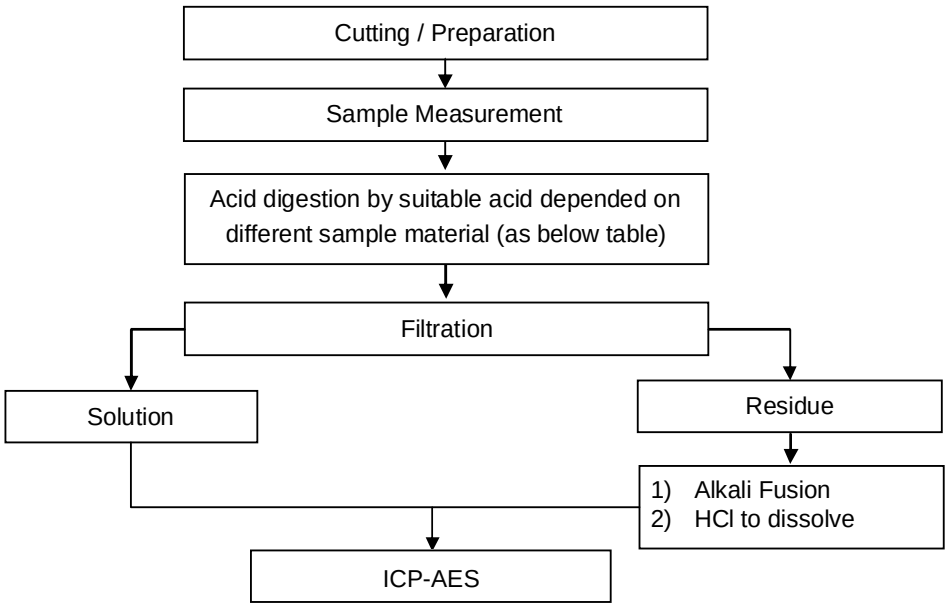


Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Added appropriate reagent to total digestion

Note :** (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95℃.
(2) For metallic material, add pure water and heat to boiling.

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
2) Name of the person who made measurement: Climbgreat Yang
3) Name of the person in charge of measurement: Troy Chang

Flow Chart of digestion for the elements analysis performed by ICP-AES



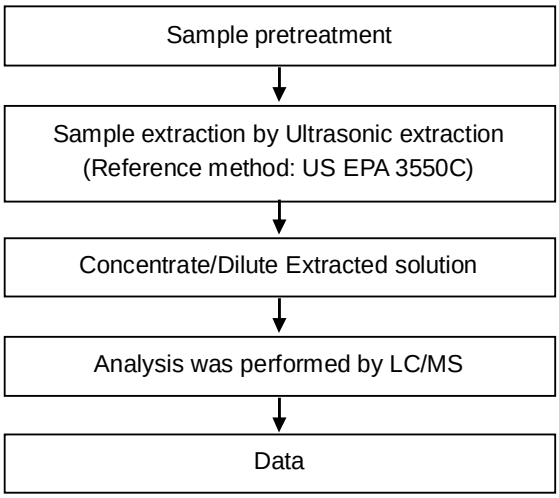
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Added appropriate reagent to total digestion

SECOS CORPORATION *CE/2013/A2450*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

PFOA/PFOS analytical flow chart of Ultrasonic extraction (LC/MS) procedure

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang

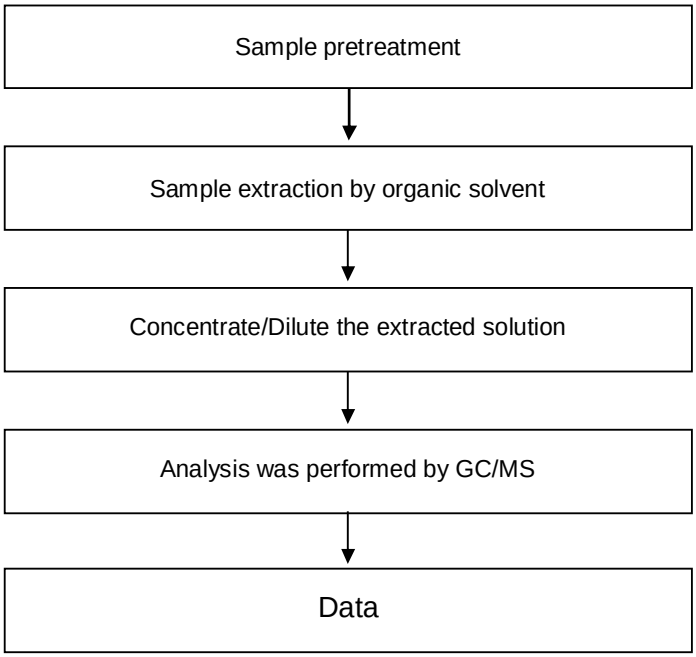


SECOS CORPORATION *CE/2013/A2450*

8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN

PCBs analytical flow chart

- Name of the person who made measurement: Barry Tseng
- Name of the person in charge of measurement: Troy Chang



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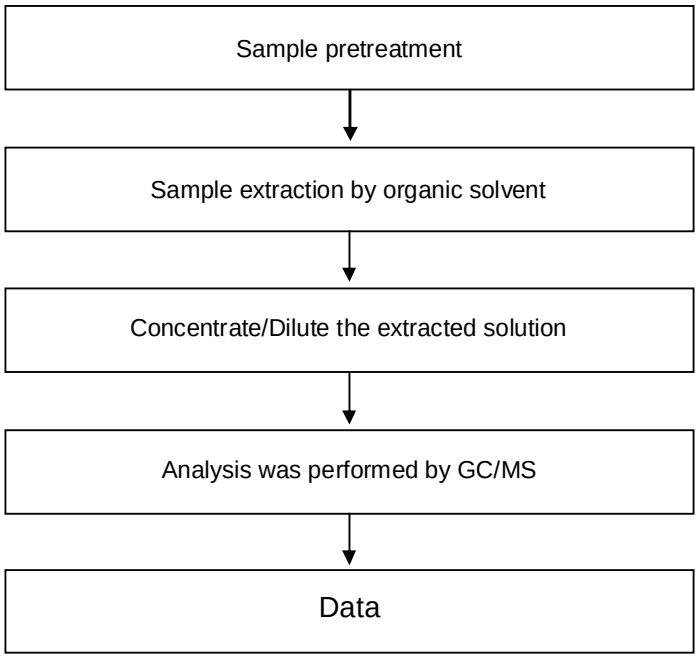
PCTs analytical flow chart

- Name of the person who made measurement: Barry Tseng
- Name of the person in charge of measurement: Troy Chang



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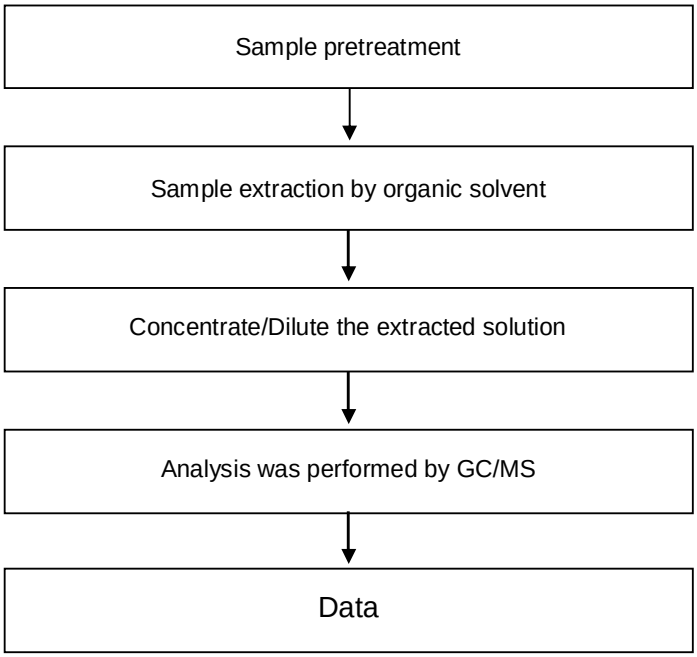
PCNs analytical flow chart

- Name of the person who made measurement: Barry Tseng
- Name of the person in charge of measurement: Troy Chang



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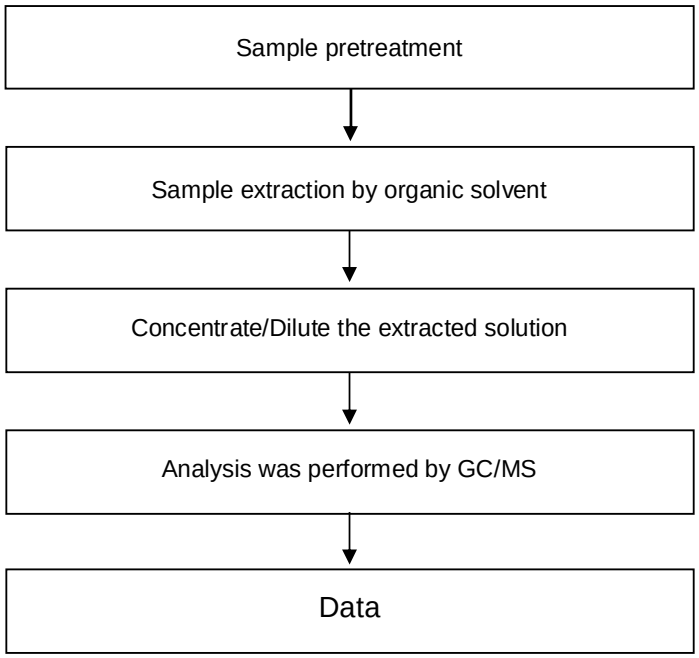
Chlorinated Paraffins analytical flow chart

- Name of the person who made measurement: Barry Tseng
- Name of the person in charge of measurement: Troy Chang



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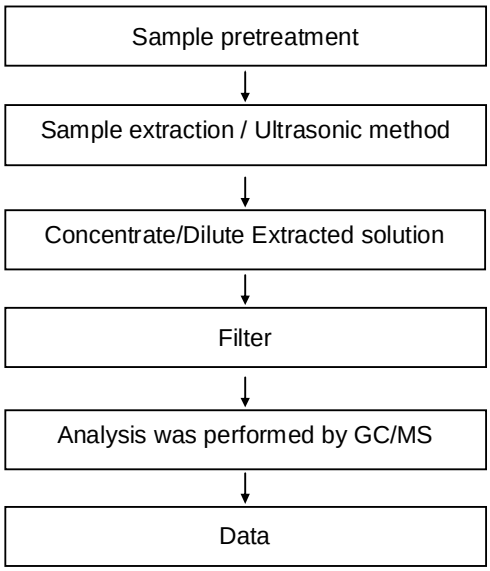
Dimethyl Fumarate analytical flow chart

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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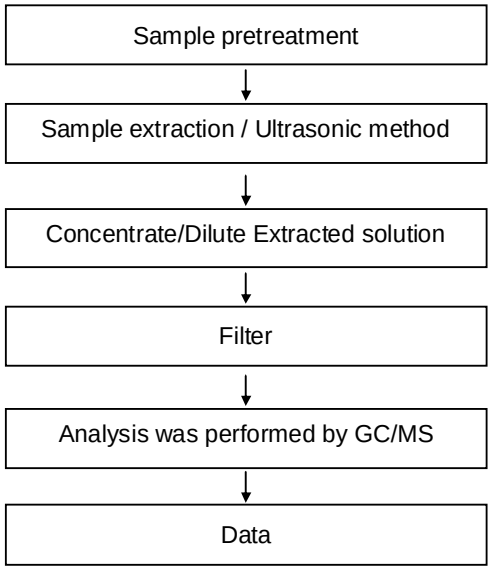
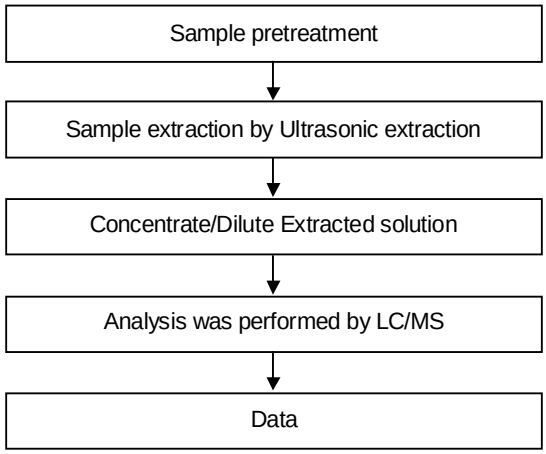
HBCDD analytical flow chart

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



TBBP-A analytical flow chart

- Name of the person who made measurement: Ginny Chen
- Name of the person in charge of measurement: Troy Chang



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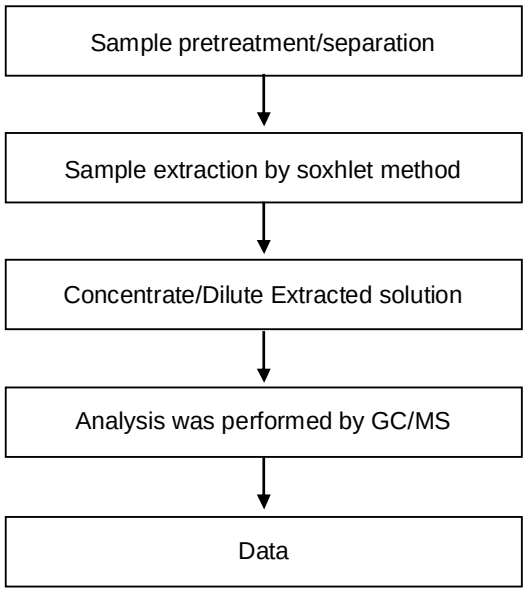
Analytical flow chart of phthalate content

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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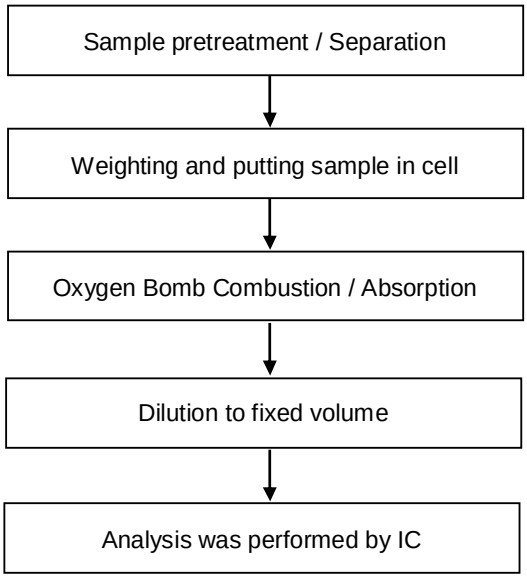
Analytical flow chart of halogen content

- Name of the person who made measurement: Rita Chen
- Name of the person in charge of measurement: Troy Chang



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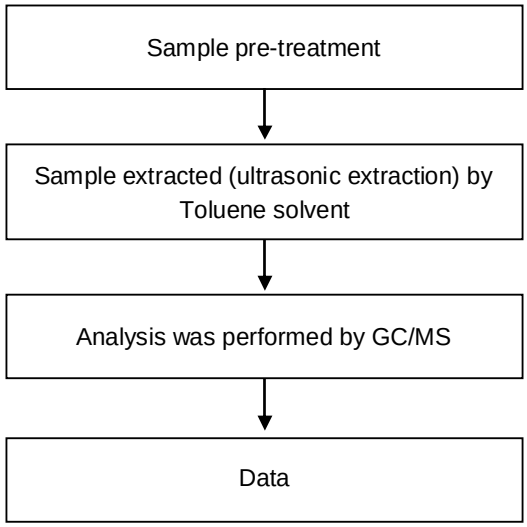
PAHs (Polynuclear Aromatic Hydrocarbons) analytical flow chart

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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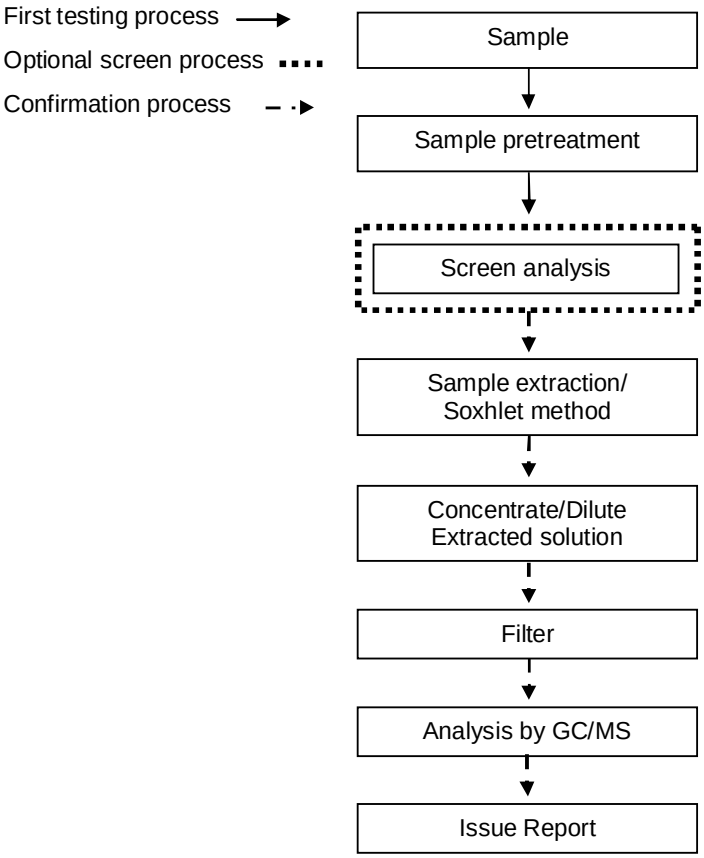
PBB/PBDE analytical FLOW CHART

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang



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*** The tested sample / part is marked by an arrow if it's shown on the photo. ***

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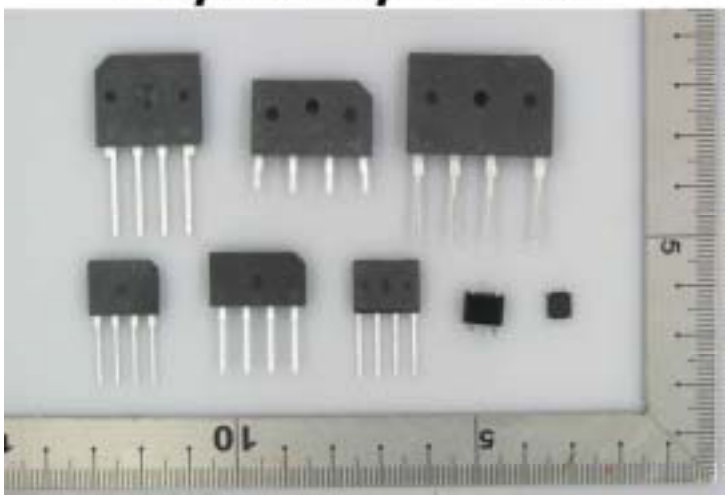
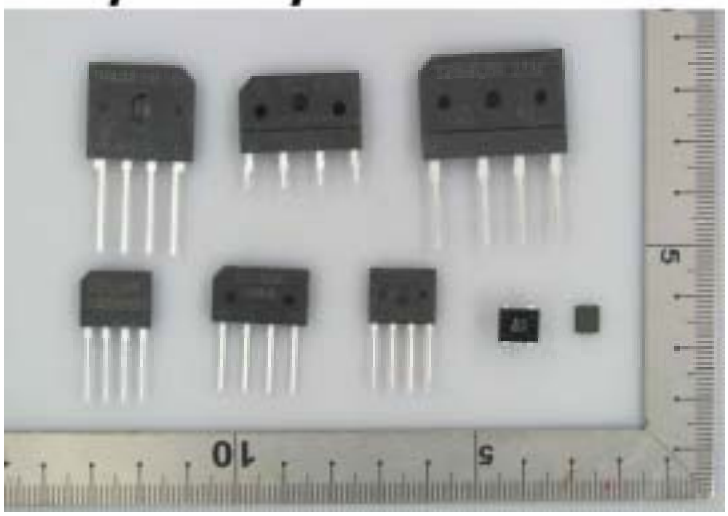


CE/2013/A2450 NO.1



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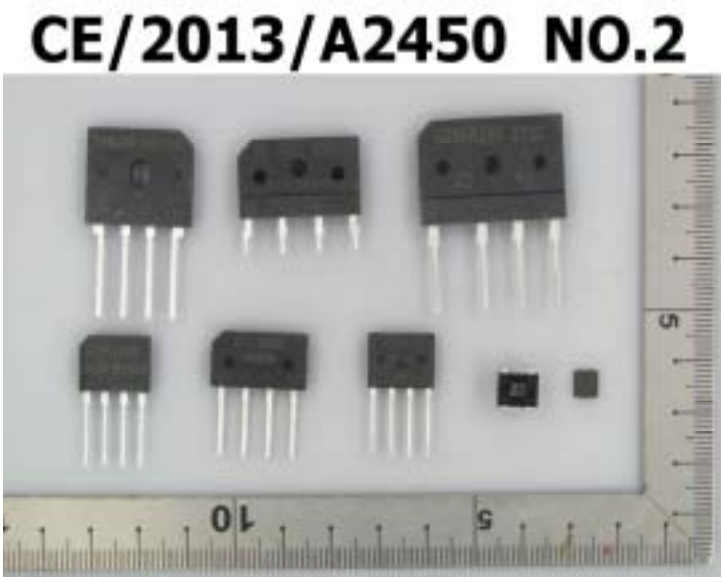
8F, NO. 33, LANE 155, SEC. 3, BEI-SHEN RD., SHEN KENG DIST., NEW TAIPEI CITY, TAIWAN



** End of Report **