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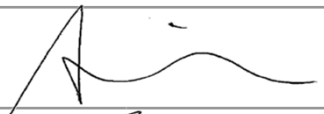
## Product/Process Change Notification

| PCN# | Effective Date | Issue Date |
|---|---|---|
| 2018-05-04C-01 | 2018/8/4 | 2018/5/4 |
| PCN Classification | Product Category | |
| Major | Schottky | |

| Subject |
|---|
| Production process change from lead free to halogen free. |
| **Affected Product(s)** |
| SOD-123 Package of Schottky,  Such as attachments. |
| **Description of Change(s)** |
| To meet EU environment requirement, we implement halogen free to our products. |
| **Content of Change(s)** |
| Adding “-C” to each part number. |
| **Impact(s)** |
| N/A |
| **Attachment(s)** |
| Reliability report. SGS 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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## Affected Product(s)

| | |
|---|---|
| SCS0520P | SCS130P |
| SCS0530P | SCS140P |
| SCS0540P | SCS160P |
| SCS0560P | SCS1100P |
| SCS05100P | SCS1200P |
| SCS120P | SCS220P~SCS240P |

# SeCoS Corporation

## Reliability Testing Summary Report

Date: 2018/04/30 Document No.: SL18 -04- 140P

| Test Item | P/N | Test Condition | (LTPD) | Sample Numbers | Allow Fall Numbers | Fall Numbers | Result |
|---|---|---|---|---|---|---|---|
| HTRB<br>High Temp Reverse Bias | SCS140P-C | 100 ± 5℃, 80%VR,<br>T = 1000hrs | | 77 | 0 | 0 | ACC |
| HTSL<br>High Temperature Storage Life | SCS140P-C | 150℃, T = 1000 hrs | | 77 | 0 | 0 | ACC |
| PCT<br>Pressure Cooker Test | SCS140P-C | 121℃, 29.7PSIG,<br>168 hrs | | 77 | 0 | 0 | ACC |
| TCT<br>Temperature Cycle Test | SCS140P-C | -55℃/30min,<br>150℃/30min,<br>For 1000 Cycle | | 77 | 0 | 0 | ACC |
| THT<br>High Temperature High Humidity Test | SCS140P-C | 85 ± 2℃, RH=85±5%,<br>1000 hrs | | 77 | 0 | 0 | ACC |
| H3TRB<br>High Temper High Humidity Reverse Bies Test | SCS140P-C | 85 ± 2℃, RH=85±5%,<br>80%VR, 1000 hrs | | 77 | 0 | 0 | ACC |
| Solderability | SCS140P-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: 2018.03.05 Testing End Date: 2018.04.30**

**Tester: King Huang Approval: Peter Yang**

# SeCoS Corporation

## Electrical Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 25℃
Test Date: 2018.03.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

| No | VF | VB | IR |
|---|---|---|---|
| 1 | 468.5mV | 54.80V | 22.62uA |
| 2 | 471.0mV | 54.82V | 24.92uA |
| 3 | 470.0mV | 54.95V | 24.89uA |
| 4 | 471.8mV | 54.59V | 22.04uA |
| 5 | 470.7mV | 55.26V | 20.52uA |
| 6 | 470.4mV | 54.76V | 22.17uA |
| 7 | 471.2mV | 54.83V | 23.92uA |
| 8 | 472.9mV | 55.17V | 21.16uA |
| 9 | 472.5mV | 54.70V | 23.37uA |
| 10 | 470.4mV | 55.10V | 20.17uA |
| 11 | 471.5mV | 55.00V | 20.00uA |
| 12 | 472.1mV | 55.24V | 21.89uA |
| 13 | 470.7mV | 54.53V | 20.28uA |
| 14 | 469.3mV | 54.61V | 22.93uA |
| 15 | 470.6mV | 54.95V | 21.25uA |
| 16 | 469.2mV | 55.16V | 21.93uA |
| 17 | 470.4mV | 54.66V | 19.43uA |
| 18 | 469.9mV | 54.62V | 22.86uA |
| 19 | 470.2mV | 55.04V | 21.09uA |
| 20 | 471.7mV | 55.09V | 21.73uA |
| 21 | 470.9mV | 54.41V | 24.41uA |
| 22 | 472.7mV | 54.41V | 22.45uA |
| 23 | 470.6mV | 54.78V | 23.70uA |
| 24 | 469.1mV | 54.56V | 23.72uA |
| 25 | 472.4mV | 55.22V | 21.28uA |
| 26 | 468.9mV | 54.57V | 23.38uA |
| 27 | 470.2mV | 55.07V | 19.99uA |
| 28 | 471.6mV | 55.19V | 22.39uA |
| 29 | 467.9mV | 54.94V | 23.74uA |
| 30 | 469.5mV | 54.97V | 24.61uA |
| 31 | 473.4mV | 54.59V | 25.07uA |

# SeCoS Corporation

## Electrical Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 25℃
Test Date: 2018.03.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

| No | VF | VB | IR |
|---|---|---|---|
| 32 | 473.9mV | 54.78V | 21.41uA |
| 33 | 469.2mV | 54.42V | 19.58uA |
| 34 | 469.9mV | 54.73V | 23.98uA |
| 35 | 471.0mV | 54.78V | 23.87uA |
| 36 | 469.8mV | 54.58V | 19.65uA |
| 37 | 469.0mV | 54.51V | 19.51uA |
| 38 | 467.4mV | 55.03V | 21.72uA |
| 39 | 468.8mV | 54.90V | 19.95uA |
| 40 | 471.9mV | 54.80V | 19.75uA |
| 41 | 472.7mV | 55.10V | 19.77uA |
| 42 | 470.6mV | 54.70V | 22.66uA |
| 43 | 469.2mV | 54.99V | 21.92uA |
| 44 | 467.5mV | 54.85V | 19.98uA |
| 45 | 473.1mV | 54.49V | 24.05uA |
| 46 | 471.8mV | 54.83V | 20.51uA |
| 47 | 467.9mV | 54.85V | 22.10uA |
| 48 | 467.3mV | 54.71V | 23.45uA |
| 49 | 468.9mV | 54.60V | 23.41uA |
| 50 | 473.9mV | 54.72V | 19.82uA |
| 51 | 468.0mV | 54.99V | 24.75uA |
| 52 | 467.7mV | 54.48V | 21.66uA |
| 53 | 467.6mV | 55.24V | 20.53uA |
| 54 | 473.7mV | 54.91V | 24.62uA |
| 55 | 468.1mV | 54.95V | 21.31uA |
| 56 | 467.8mV | 54.70V | 24.58uA |
| 57 | 469.4mV | 54.52V | 20.58uA |
| 58 | 472.8mV | 54.43V | 21.91uA |
| 59 | 472.6mV | 54.69V | 21.41uA |
| 60 | 471.5mV | 54.37V | 21.38uA |
| 61 | 473.0mV | 54.93V | 23.75uA |
| 62 | 469.4mV | 54.45V | 22.83uA |

# SeCoS Corporation

## Electrical Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 25℃
Test Date: 2018.03.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

| No | VF | VB | IR |
|---|---|---|---|
| 63 | 467.8mV | 54.33V | 19.88uA |
| 64 | 472.5mV | 54.42V | 20.40uA |
| 65 | 471.5mV | 54.52V | 24.42uA |
| 66 | 471.3mV | 54.64V | 24.06uA |
| 67 | 468.3mV | 54.88V | 22.48uA |
| 68 | 469.0mV | 55.16V | 22.36uA |
| 69 | 471.2mV | 54.94V | 19.73uA |
| 70 | 468.4mV | 54.72V | 20.51uA |
| 71 | 468.9mV | 54.47V | 20.45uA |
| 72 | 469.6mV | 54.80V | 23.92uA |
| 73 | 473.2mV | 54.64V | 22.65uA |
| 74 | 471.8mV | 54.39V | 22.67uA |
| 75 | 467.2mV | 55.02V | 24.55uA |
| 76 | 469.3mV | 54.74V | 20.07uA |
| 77 | 473.3mV | 54.42V | 22.80uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## High Temperature Reverse Bias Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 470.1mV | 54.60V | 23.58uA | 468.5mV | 54.41V | 21.72uA |
| 2 | 473.1mV | 55.23V | 20.48uA | 473.6mV | 54.68V | 21.26uA |
| 3 | 471.2mV | 54.63V | 19.71uA | 470.5mV | 54.65V | 22.46uA |
| 4 | 473.3mV | 54.87V | 24.13uA | 472.0mV | 54.84V | 22.07uA |
| 5 | 467.7mV | 54.99V | 22.16uA | 467.1mV | 54.41V | 24.45uA |
| 6 | 468.6mV | 54.86V | 22.30uA | 469.6mV | 55.19V | 23.59uA |
| 7 | 468.7mV | 54.78V | 24.21uA | 471.4mV | 54.93V | 19.62uA |
| 8 | 472.4mV | 55.05V | 24.26uA | 470.0mV | 55.12V | 21.16uA |
| 9 | 473.2mV | 55.22V | 21.46uA | 468.0mV | 54.31V | 22.81uA |
| 10 | 467.3mV | 54.31V | 24.33uA | 471.6mV | 54.70V | 20.70uA |
| 11 | 470.1mV | 55.18V | 22.51uA | 473.4mV | 54.96V | 22.58uA |
| 12 | 471.0mV | 55.07V | 20.73uA | 472.8mV | 54.79V | 23.45uA |
| 13 | 469.9mV | 54.90V | 24.97uA | 467.1mV | 55.25V | 23.64uA |
| 14 | 468.4mV | 54.93V | 20.72uA | 471.3mV | 54.98V | 21.40uA |
| 15 | 472.1mV | 54.80V | 25.17uA | 468.0mV | 54.84V | 19.89uA |
| 16 | 470.2mV | 54.82V | 22.96uA | 467.9mV | 54.80V | 23.77uA |
| 17 | 468.0mV | 55.16V | 23.69uA | 472.1mV | 54.83V | 24.52uA |
| 18 | 469.5mV | 54.79V | 21.60uA | 469.0mV | 55.00V | 21.66uA |
| 19 | 467.7mV | 55.17V | 23.36uA | 469.4mV | 54.77V | 22.66uA |
| 20 | 471.4mV | 54.61V | 23.36uA | 469.6mV | 55.16V | 24.41uA |
| 21 | 473.8mV | 54.83V | 22.32uA | 471.8mV | 54.70V | 20.98uA |
| 22 | 473.9mV | 55.00V | 21.36uA | 470.3mV | 54.44V | 24.46uA |
| 23 | 471.4mV | 54.73V | 22.40uA | 467.6mV | 55.17V | 21.42uA |
| 24 | 469.2mV | 55.07V | 20.26uA | 473.7mV | 54.92V | 21.60uA |
| 25 | 473.5mV | 54.95V | 23.86uA | 469.8mV | 54.45V | 21.77uA |
| 26 | 474.0mV | 54.99V | 23.96uA | 472.3mV | 54.87V | 23.87uA |
| 27 | 472.0mV | 54.61V | 21.41uA | 472.6mV | 54.58V | 19.68uA |
| 28 | 471.6mV | 54.59V | 23.84uA | 473.5mV | 55.24V | 20.32uA |
| 29 | 473.7mV | 54.44V | 24.11uA | 467.5mV | 54.47V | 23.70uA |
| 30 | 470.7mV | 55.00V | 21.12uA | 471.7mV | 54.51V | 19.69uA |

# SeCoS Corporation

## High Temperature Reverse Bias Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 468.7mV | 54.67V | 20.67uA | 472.9mV | 55.10V | 20.95uA |
| 32 | 470.1mV | 54.81V | 20.85uA | 469.8mV | 55.09V | 20.14uA |
| 33 | 473.7mV | 54.82V | 21.81uA | 472.8mV | 54.75V | 21.65uA |
| 34 | 469.3mV | 54.62V | 19.31uA | 468.4mV | 54.57V | 22.59uA |
| 35 | 469.4mV | 54.49V | 22.04uA | 471.2mV | 55.01V | 20.01uA |
| 36 | 467.1mV | 54.71V | 23.23uA | 469.0mV | 55.05V | 21.56uA |
| 37 | 473.5mV | 54.94V | 22.16uA | 469.6mV | 55.15V | 22.12uA |
| 38 | 470.2mV | 54.62V | 20.34uA | 468.8mV | 54.78V | 25.13uA |
| 39 | 467.9mV | 54.52V | 24.18uA | 469.2mV | 54.95V | 24.00uA |
| 40 | 467.9mV | 54.35V | 23.23uA | 472.5mV | 54.37V | 23.82uA |
| 41 | 467.3mV | 54.91V | 22.79uA | 471.9mV | 54.33V | 23.00uA |
| 42 | 473.5mV | 55.27V | 24.80uA | 473.9mV | 54.59V | 21.40uA |
| 43 | 473.1mV | 55.19V | 19.70uA | 471.9mV | 55.10V | 19.65uA |
| 44 | 467.8mV | 55.09V | 19.42uA | 468.6mV | 54.55V | 22.93uA |
| 45 | 471.7mV | 54.62V | 21.46uA | 472.4mV | 54.51V | 20.40uA |
| 46 | 471.8mV | 55.21V | 21.59uA | 467.7mV | 55.09V | 23.89uA |
| 47 | 472.4mV | 55.16V | 23.64uA | 473.5mV | 55.04V | 24.71uA |
| 48 | 467.6mV | 54.81V | 22.41uA | 471.8mV | 54.42V | 21.09uA |
| 49 | 471.5mV | 54.85V | 22.85uA | 467.2mV | 54.38V | 22.81uA |
| 50 | 468.5mV | 54.50V | 23.79uA | 472.8mV | 55.08V | 19.25uA |
| 51 | 467.3mV | 54.62V | 23.41uA | 468.6mV | 54.53V | 23.08uA |
| 52 | 472.0mV | 54.77V | 21.56uA | 473.7mV | 54.87V | 20.22uA |
| 53 | 468.4mV | 54.79V | 20.65uA | 472.2mV | 54.81V | 21.96uA |
| 54 | 468.2mV | 55.00V | 21.67uA | 471.5mV | 55.26V | 21.99uA |
| 55 | 472.0mV | 55.19V | 24.78uA | 469.1mV | 55.21V | 22.38uA |
| 56 | 470.0mV | 55.10V | 24.01uA | 468.0mV | 55.09V | 22.67uA |
| 57 | 470.5mV | 54.78V | 24.04uA | 473.5mV | 54.77V | 23.19uA |
| 58 | 471.0mV | 54.86V | 24.73uA | 472.5mV | 55.09V | 19.46uA |
| 59 | 472.3mV | 54.80V | 24.19uA | 467.2mV | 54.45V | 21.22uA |
| 60 | 469.8mV | 54.40V | 22.62uA | 471.9mV | 54.57V | 23.67uA |

# SeCoS Corporation

## High Temperature Reverse Bias Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 100 ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 473.1mV | 54.69V | 23.29uA | 471.8mV | 54.68V | 25.09uA |
| 62 | 472.7mV | 55.00V | 21.37uA | 472.8mV | 54.48V | 23.84uA |
| 63 | 470.5mV | 54.71V | 19.70uA | 468.2mV | 55.05V | 23.82uA |
| 64 | 473.6mV | 55.14V | 22.81uA | 472.4mV | 54.93V | 23.26uA |
| 65 | 470.8mV | 54.99V | 24.49uA | 472.0mV | 54.62V | 21.98uA |
| 66 | 468.8mV | 54.57V | 24.91uA | 471.3mV | 54.57V | 21.84uA |
| 67 | 469.6mV | 55.15V | 25.09uA | 468.7mV | 54.48V | 24.57uA |
| 68 | 467.7mV | 54.91V | 21.35uA | 473.1mV | 54.69V | 24.35uA |
| 69 | 467.0mV | 54.99V | 20.71uA | 471.1mV | 54.83V | 19.88uA |
| 70 | 470.1mV | 54.77V | 23.62uA | 469.8mV | 55.21V | 25.16uA |
| 71 | 472.2mV | 54.96V | 22.02uA | 470.2mV | 54.33V | 22.18uA |
| 72 | 471.7mV | 55.12V | 24.95uA | 468.1mV | 54.82V | 19.43uA |
| 73 | 468.1mV | 54.44V | 20.15uA | 468.6mV | 55.05V | 19.38uA |
| 74 | 473.0mV | 54.87V | 24.49uA | 468.0mV | 54.54V | 19.76uA |
| 75 | 468.9mV | 54.98V | 22.02uA | 470.3mV | 54.58V | 19.56uA |
| 76 | 472.1mV | 54.69V | 20.80uA | 468.9mV | 54.33V | 22.11uA |
| 77 | 473.7mV | 55.17V | 23.63uA | 468.8mV | 55.16V | 21.32uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## High Temperature Storage Life Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 468.4mV | 55.13V | 19.52uA | 472.4mV | 54.73V | 21.23uA |
| 2 | 468.5mV | 55.07V | 24.94uA | 472.7mV | 55.27V | 20.09uA |
| 3 | 469.1mV | 54.51V | 24.62uA | 468.4mV | 55.27V | 25.09uA |
| 4 | 471.0mV | 54.43V | 23.12uA | 470.6mV | 54.74V | 21.43uA |
| 5 | 471.0mV | 55.18V | 23.13uA | 470.2mV | 54.45V | 24.28uA |
| 6 | 468.9mV | 55.04V | 22.49uA | 470.3mV | 54.46V | 23.79uA |
| 7 | 472.9mV | 55.20V | 19.97uA | 468.9mV | 55.20V | 22.53uA |
| 8 | 473.8mV | 54.37V | 22.51uA | 473.8mV | 54.39V | 19.71uA |
| 9 | 468.6mV | 54.77V | 21.25uA | 473.1mV | 55.02V | 23.19uA |
| 10 | 468.6mV | 54.44V | 21.59uA | 472.5mV | 55.02V | 20.69uA |
| 11 | 468.4mV | 54.80V | 22.42uA | 469.5mV | 54.52V | 23.20uA |
| 12 | 470.6mV | 54.73V | 20.90uA | 468.0mV | 55.03V | 24.45uA |
| 13 | 468.2mV | 54.91V | 19.62uA | 471.5mV | 54.98V | 19.50uA |
| 14 | 469.2mV | 54.37V | 23.46uA | 469.9mV | 54.39V | 24.19uA |
| 15 | 473.5mV | 55.16V | 21.18uA | 470.0mV | 55.26V | 20.25uA |
| 16 | 473.1mV | 54.41V | 20.09uA | 470.7mV | 54.51V | 24.48uA |
| 17 | 473.5mV | 54.77V | 21.03uA | 472.5mV | 54.31V | 21.00uA |
| 18 | 467.6mV | 54.96V | 20.79uA | 467.1mV | 54.34V | 19.76uA |
| 19 | 473.1mV | 55.26V | 20.99uA | 468.8mV | 54.85V | 20.79uA |
| 20 | 470.7mV | 54.38V | 24.76uA | 469.1mV | 54.63V | 21.24uA |
| 21 | 468.4mV | 54.46V | 22.12uA | 468.1mV | 54.88V | 21.17uA |
| 22 | 472.4mV | 54.95V | 24.33uA | 472.1mV | 55.15V | 24.85uA |
| 23 | 472.7mV | 54.51V | 21.92uA | 468.1mV | 54.86V | 19.92uA |
| 24 | 467.8mV | 55.11V | 21.90uA | 471.9mV | 55.03V | 23.45uA |
| 25 | 468.3mV | 54.85V | 23.89uA | 470.6mV | 54.79V | 19.33uA |
| 26 | 473.6mV | 54.48V | 23.13uA | 468.6mV | 54.73V | 22.82uA |
| 27 | 473.6mV | 55.04V | 19.25uA | 469.3mV | 54.53V | 24.38uA |
| 28 | 467.4mV | 55.08V | 23.20uA | 473.5mV | 55.21V | 23.33uA |
| 29 | 472.3mV | 55.01V | 24.24uA | 470.1mV | 54.55V | 24.03uA |
| 30 | 469.6mV | 54.68V | 22.52uA | 469.3mV | 54.83V | 21.98uA |

# SeCoS Corporation

## High Temperature Storage Life Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 468.0mV | 54.62V | 19.89uA | 470.3mV | 54.50V | 23.94uA |
| 32 | 470.4mV | 54.93V | 22.50uA | 471.4mV | 54.75V | 23.63uA |
| 33 | 472.6mV | 54.94V | 20.23uA | 467.9mV | 54.85V | 20.08uA |
| 34 | 467.7mV | 54.40V | 21.80uA | 473.6mV | 54.46V | 22.18uA |
| 35 | 473.0mV | 55.12V | 24.89uA | 467.7mV | 55.04V | 21.25uA |
| 36 | 469.4mV | 54.97V | 25.00uA | 470.3mV | 54.94V | 22.60uA |
| 37 | 467.8mV | 54.42V | 23.43uA | 473.0mV | 54.91V | 23.16uA |
| 38 | 467.0mV | 54.75V | 20.73uA | 471.1mV | 54.55V | 20.49uA |
| 39 | 469.6mV | 54.82V | 22.57uA | 471.5mV | 54.41V | 25.15uA |
| 40 | 467.4mV | 55.06V | 24.07uA | 471.9mV | 55.00V | 24.03uA |
| 41 | 468.2mV | 54.81V | 19.26uA | 473.7mV | 55.03V | 22.75uA |
| 42 | 468.5mV | 54.91V | 24.76uA | 470.2mV | 54.76V | 24.30uA |
| 43 | 468.4mV | 54.65V | 20.60uA | 471.8mV | 54.41V | 24.67uA |
| 44 | 468.0mV | 54.47V | 24.65uA | 468.0mV | 54.75V | 22.06uA |
| 45 | 467.1mV | 55.19V | 22.63uA | 473.5mV | 55.09V | 21.77uA |
| 46 | 473.2mV | 55.25V | 23.17uA | 467.6mV | 54.83V | 21.60uA |
| 47 | 473.4mV | 54.60V | 19.29uA | 467.8mV | 54.46V | 25.00uA |
| 48 | 472.8mV | 55.07V | 20.07uA | 473.6mV | 54.66V | 24.22uA |
| 49 | 473.4mV | 55.07V | 19.75uA | 472.3mV | 54.88V | 21.36uA |
| 50 | 467.4mV | 54.33V | 23.97uA | 467.4mV | 55.03V | 20.33uA |
| 51 | 469.3mV | 54.82V | 21.51uA | 468.8mV | 54.87V | 22.28uA |
| 52 | 472.6mV | 55.18V | 22.52uA | 472.8mV | 54.85V | 20.73uA |
| 53 | 470.1mV | 54.71V | 24.54uA | 467.8mV | 55.06V | 24.18uA |
| 54 | 473.2mV | 55.19V | 23.87uA | 472.4mV | 54.90V | 22.82uA |
| 55 | 474.0mV | 54.54V | 21.58uA | 468.0mV | 54.31V | 25.03uA |
| 56 | 469.2mV | 54.71V | 24.53uA | 469.8mV | 54.40V | 21.53uA |
| 57 | 467.5mV | 55.03V | 22.42uA | 472.2mV | 55.04V | 21.21uA |
| 58 | 473.1mV | 54.70V | 20.51uA | 468.6mV | 54.61V | 22.06uA |
| 59 | 469.9mV | 55.22V | 23.25uA | 470.2mV | 54.74V | 22.70uA |
| 60 | 468.2mV | 55.12V | 22.71uA | 468.0mV | 54.81V | 20.39uA |

# SeCoS Corporation

## High Temperature Storage Life Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2018.03.06 ~ 2018.04.18
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 473.0mV | 54.63V | 22.77uA | 469.4mV | 54.77V | 21.88uA |
| 62 | 470.2mV | 54.44V | 24.53uA | 473.7mV | 54.47V | 19.24uA |
| 63 | 469.4mV | 54.69V | 21.24uA | 469.4mV | 55.06V | 24.86uA |
| 64 | 469.8mV | 55.15V | 23.36uA | 467.8mV | 55.19V | 22.02uA |
| 65 | 467.8mV | 55.01V | 20.53uA | 471.7mV | 54.47V | 21.59uA |
| 66 | 468.7mV | 54.60V | 21.00uA | 467.4mV | 54.82V | 23.13uA |
| 67 | 470.3mV | 54.42V | 23.04uA | 472.8mV | 54.82V | 21.86uA |
| 68 | 473.2mV | 55.14V | 24.97uA | 469.2mV | 54.41V | 25.09uA |
| 69 | 467.4mV | 54.55V | 23.40uA | 470.4mV | 55.02V | 21.34uA |
| 70 | 472.5mV | 55.13V | 23.50uA | 469.8mV | 55.04V | 20.08uA |
| 71 | 470.0mV | 54.48V | 23.11uA | 470.9mV | 54.98V | 22.58uA |
| 72 | 472.7mV | 54.32V | 21.52uA | 470.7mV | 54.87V | 22.49uA |
| 73 | 468.9mV | 55.15V | 19.96uA | 472.9mV | 55.26V | 22.43uA |
| 74 | 470.5mV | 55.24V | 21.97uA | 472.0mV | 55.00V | 22.49uA |
| 75 | 470.7mV | 54.93V | 20.71uA | 471.5mV | 55.10V | 21.61uA |
| 76 | 473.1mV | 55.11V | 24.96uA | 473.3mV | 54.82V | 21.30uA |
| 77 | 467.2mV | 54.33V | 23.44uA | 471.0mV | 55.25V | 22.36uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## Pressure Cooker Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.03.05 ~ 2018.03.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 467.5mV | 54.91V | 22.92uA | 474.0mV | 55.17V | 21.81uA |
| 2 | 471.4mV | 54.33V | 20.48uA | 469.3mV | 55.11V | 24.01uA |
| 3 | 472.3mV | 54.80V | 20.74uA | 468.2mV | 54.94V | 19.42uA |
| 4 | 469.9mV | 54.37V | 19.28uA | 472.2mV | 54.52V | 21.96uA |
| 5 | 470.6mV | 54.44V | 22.11uA | 467.2mV | 54.64V | 22.13uA |
| 6 | 473.4mV | 54.63V | 24.78uA | 469.3mV | 54.63V | 25.01uA |
| 7 | 470.2mV | 54.64V | 20.29uA | 467.4mV | 54.98V | 21.22uA |
| 8 | 470.4mV | 54.53V | 23.95uA | 473.5mV | 54.90V | 19.96uA |
| 9 | 473.3mV | 54.41V | 23.18uA | 473.0mV | 54.59V | 20.88uA |
| 10 | 472.7mV | 55.19V | 22.65uA | 470.6mV | 54.84V | 19.53uA |
| 11 | 473.4mV | 55.26V | 25.01uA | 470.8mV | 54.74V | 24.24uA |
| 12 | 472.2mV | 55.06V | 21.77uA | 468.0mV | 54.68V | 22.54uA |
| 13 | 471.4mV | 54.49V | 20.21uA | 473.8mV | 54.37V | 22.00uA |
| 14 | 472.8mV | 54.81V | 22.00uA | 469.9mV | 54.43V | 24.55uA |
| 15 | 471.4mV | 54.52V | 21.12uA | 469.2mV | 55.18V | 24.70uA |
| 16 | 469.9mV | 54.83V | 22.59uA | 467.1mV | 54.49V | 22.64uA |
| 17 | 470.6mV | 55.19V | 23.83uA | 470.6mV | 54.35V | 22.15uA |
| 18 | 467.2mV | 54.80V | 19.59uA | 469.4mV | 55.01V | 20.24uA |
| 19 | 467.4mV | 54.70V | 22.64uA | 468.0mV | 55.26V | 20.45uA |
| 20 | 473.7mV | 54.62V | 21.83uA | 472.8mV | 54.34V | 24.39uA |
| 21 | 467.5mV | 54.47V | 20.20uA | 470.3mV | 54.90V | 23.81uA |
| 22 | 472.6mV | 54.80V | 19.33uA | 471.1mV | 54.98V | 25.14uA |
| 23 | 470.9mV | 55.22V | 23.19uA | 469.1mV | 54.68V | 21.34uA |
| 24 | 471.6mV | 54.59V | 20.81uA | 469.8mV | 54.95V | 20.46uA |
| 25 | 471.9mV | 54.89V | 19.84uA | 469.5mV | 54.97V | 20.66uA |
| 26 | 467.5mV | 54.61V | 20.64uA | 473.2mV | 54.96V | 21.80uA |
| 27 | 469.5mV | 55.07V | 21.31uA | 470.4mV | 54.37V | 22.41uA |
| 28 | 472.3mV | 55.23V | 23.48uA | 470.3mV | 55.01V | 23.49uA |
| 29 | 468.6mV | 55.04V | 20.79uA | 470.1mV | 54.83V | 24.69uA |
| 30 | 473.6mV | 54.99V | 22.19uA | 469.4mV | 54.85V | 22.61uA |

# SeCoS Corporation

## Pressure Cooker Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.03.05 ~ 2018.03.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 467.5mV | 54.99V | 22.89uA | 471.7mV | 55.18V | 19.87uA |
| 32 | 468.6mV | 54.45V | 22.55uA | 467.9mV | 54.85V | 22.24uA |
| 33 | 471.1mV | 54.66V | 23.00uA | 467.6mV | 54.75V | 19.39uA |
| 34 | 467.9mV | 54.84V | 22.20uA | 473.4mV | 54.42V | 24.80uA |
| 35 | 469.0mV | 55.07V | 23.41uA | 468.6mV | 54.89V | 20.44uA |
| 36 | 468.4mV | 54.49V | 24.18uA | 468.5mV | 55.22V | 24.61uA |
| 37 | 470.7mV | 54.65V | 20.08uA | 467.2mV | 54.98V | 24.59uA |
| 38 | 467.6mV | 55.03V | 23.83uA | 469.9mV | 54.38V | 19.70uA |
| 39 | 469.2mV | 54.91V | 22.06uA | 471.4mV | 54.90V | 22.43uA |
| 40 | 467.3mV | 54.82V | 23.51uA | 468.2mV | 54.36V | 19.33uA |
| 41 | 469.1mV | 55.13V | 24.06uA | 473.4mV | 55.16V | 22.83uA |
| 42 | 469.2mV | 55.10V | 21.59uA | 467.8mV | 54.39V | 22.65uA |
| 43 | 469.0mV | 54.53V | 24.77uA | 469.4mV | 54.54V | 20.60uA |
| 44 | 471.7mV | 54.57V | 20.20uA | 473.6mV | 55.25V | 23.65uA |
| 45 | 467.2mV | 54.97V | 23.20uA | 473.2mV | 54.46V | 22.40uA |
| 46 | 473.2mV | 54.53V | 21.43uA | 469.2mV | 54.46V | 19.42uA |
| 47 | 471.1mV | 54.86V | 22.66uA | 473.9mV | 54.50V | 24.50uA |
| 48 | 467.1mV | 54.49V | 24.83uA | 473.9mV | 55.23V | 21.46uA |
| 49 | 470.7mV | 54.69V | 19.26uA | 472.6mV | 54.96V | 23.31uA |
| 50 | 469.1mV | 55.21V | 19.93uA | 472.4mV | 55.13V | 23.01uA |
| 51 | 470.2mV | 55.26V | 21.67uA | 468.8mV | 55.20V | 21.48uA |
| 52 | 470.4mV | 54.73V | 23.88uA | 473.9mV | 54.77V | 19.62uA |
| 53 | 470.7mV | 55.07V | 21.65uA | 468.5mV | 55.18V | 23.76uA |
| 54 | 473.7mV | 55.21V | 22.89uA | 471.0mV | 55.16V | 22.00uA |
| 55 | 471.3mV | 55.19V | 23.07uA | 471.1mV | 55.22V | 22.48uA |
| 56 | 468.8mV | 55.00V | 19.56uA | 471.9mV | 54.90V | 24.11uA |
| 57 | 471.8mV | 54.91V | 22.09uA | 471.0mV | 55.22V | 20.90uA |
| 58 | 471.7mV | 55.14V | 21.25uA | 468.6mV | 55.25V | 19.32uA |
| 59 | 473.7mV | 54.51V | 23.38uA | 470.0mV | 54.61V | 20.61uA |
| 60 | 468.7mV | 54.69V | 19.28uA | 468.6mV | 55.14V | 19.54uA |

# SeCoS Corporation

## Pressure Cooker Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2018.03.05 ~ 2018.03.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 470.5mV | 54.43V | 20.59uA | 467.5mV | 54.94V | 19.28uA |
| 62 | 467.1mV | 54.50V | 23.72uA | 468.4mV | 55.16V | 22.85uA |
| 63 | 468.7mV | 54.95V | 22.20uA | 470.3mV | 54.46V | 23.01uA |
| 64 | 468.0mV | 54.36V | 23.50uA | 469.3mV | 54.78V | 20.96uA |
| 65 | 473.8mV | 54.56V | 20.52uA | 470.1mV | 55.17V | 23.03uA |
| 66 | 473.1mV | 55.03V | 24.71uA | 467.1mV | 54.32V | 19.33uA |
| 67 | 470.7mV | 54.40V | 21.41uA | 468.6mV | 54.55V | 25.11uA |
| 68 | 473.4mV | 54.62V | 20.72uA | 472.9mV | 54.42V | 19.86uA |
| 69 | 468.8mV | 55.12V | 20.17uA | 468.0mV | 54.91V | 22.38uA |
| 70 | 473.6mV | 55.07V | 24.95uA | 468.4mV | 54.85V | 23.14uA |
| 71 | 467.4mV | 55.02V | 20.02uA | 473.4mV | 54.51V | 24.22uA |
| 72 | 468.4mV | 54.97V | 20.06uA | 471.9mV | 54.91V | 20.01uA |
| 73 | 468.6mV | 54.51V | 21.03uA | 470.1mV | 55.21V | 24.59uA |
| 74 | 469.9mV | 55.00V | 19.57uA | 469.6mV | 54.68V | 23.45uA |
| 75 | 470.1mV | 55.17V | 19.89uA | 470.1mV | 55.15V | 24.00uA |
| 76 | 471.1mV | 55.05V | 19.37uA | 470.3mV | 54.75V | 23.01uA |
| 77 | 469.1mV | 55.03V | 21.17uA | 473.1mV | 55.01V | 22.16uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## Temperature Cycle Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.03.06 ~ 2018.04.27
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 470.0mV | 54.52V | 23.99uA | 469.8mV | 54.92V | 20.78uA |
| 2 | 472.0mV | 54.89V | 23.50uA | 472.0mV | 55.07V | 22.02uA |
| 3 | 467.5mV | 54.51V | 21.48uA | 470.2mV | 55.11V | 24.22uA |
| 4 | 469.5mV | 55.15V | 22.00uA | 471.0mV | 55.22V | 20.34uA |
| 5 | 472.5mV | 54.83V | 24.61uA | 471.1mV | 54.95V | 20.90uA |
| 6 | 469.4mV | 54.76V | 22.42uA | 471.1mV | 54.58V | 23.02uA |
| 7 | 469.2mV | 54.58V | 20.46uA | 469.4mV | 55.22V | 20.01uA |
| 8 | 472.6mV | 54.93V | 24.97uA | 469.7mV | 54.44V | 23.78uA |
| 9 | 470.4mV | 55.26V | 24.50uA | 469.2mV | 54.92V | 22.90uA |
| 10 | 470.2mV | 54.96V | 20.25uA | 467.2mV | 54.83V | 24.15uA |
| 11 | 471.6mV | 54.38V | 24.52uA | 473.9mV | 55.00V | 23.55uA |
| 12 | 473.4mV | 54.70V | 23.05uA | 469.9mV | 54.41V | 20.78uA |
| 13 | 472.8mV | 54.35V | 21.67uA | 471.7mV | 54.51V | 20.23uA |
| 14 | 469.8mV | 54.61V | 21.40uA | 472.2mV | 54.69V | 23.23uA |
| 15 | 470.9mV | 54.83V | 19.28uA | 470.0mV | 54.86V | 21.57uA |
| 16 | 469.0mV | 55.26V | 21.66uA | 470.1mV | 54.85V | 23.99uA |
| 17 | 469.5mV | 54.97V | 24.90uA | 468.9mV | 54.51V | 24.41uA |
| 18 | 467.6mV | 55.16V | 21.32uA | 469.9mV | 54.73V | 23.23uA |
| 19 | 468.4mV | 54.60V | 22.85uA | 470.7mV | 54.93V | 20.80uA |
| 20 | 473.8mV | 54.47V | 23.28uA | 472.4mV | 54.95V | 24.95uA |
| 21 | 473.6mV | 55.12V | 19.90uA | 470.3mV | 54.36V | 21.08uA |
| 22 | 471.4mV | 54.93V | 24.07uA | 468.9mV | 54.49V | 19.53uA |
| 23 | 467.9mV | 54.54V | 21.58uA | 468.5mV | 54.66V | 24.73uA |
| 24 | 469.9mV | 54.58V | 21.43uA | 468.0mV | 55.23V | 24.04uA |
| 25 | 467.7mV | 54.95V | 20.80uA | 472.3mV | 54.71V | 20.11uA |
| 26 | 468.4mV | 55.21V | 23.49uA | 471.1mV | 55.25V | 21.44uA |
| 27 | 469.8mV | 54.62V | 20.97uA | 472.6mV | 55.04V | 24.82uA |
| 28 | 468.3mV | 54.56V | 20.65uA | 472.4mV | 55.23V | 24.94uA |
| 29 | 471.5mV | 55.20V | 20.67uA | 471.5mV | 54.39V | 20.66uA |
| 30 | 467.7mV | 55.08V | 21.94uA | 470.2mV | 55.25V | 25.16uA |

# SeCoS Corporation

## Temperature Cycle Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.03.06 ~ 2018.04.27
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 467.1mV | 54.46V | 22.51uA | 472.4mV | 54.73V | 21.48uA |
| 32 | 469.4mV | 54.64V | 24.98uA | 474.0mV | 55.10V | 19.77uA |
| 33 | 471.3mV | 54.54V | 22.39uA | 470.9mV | 54.73V | 23.99uA |
| 34 | 473.3mV | 54.90V | 23.52uA | 470.2mV | 54.96V | 22.96uA |
| 35 | 472.1mV | 55.10V | 25.08uA | 468.1mV | 55.25V | 24.33uA |
| 36 | 467.5mV | 54.58V | 24.34uA | 467.7mV | 54.93V | 20.82uA |
| 37 | 473.7mV | 54.61V | 24.77uA | 473.4mV | 55.26V | 24.62uA |
| 38 | 468.1mV | 54.92V | 21.80uA | 467.3mV | 55.22V | 21.49uA |
| 39 | 471.0mV | 54.45V | 20.68uA | 467.5mV | 54.74V | 23.76uA |
| 40 | 468.8mV | 54.58V | 23.53uA | 472.1mV | 54.91V | 19.67uA |
| 41 | 473.2mV | 54.74V | 21.27uA | 467.9mV | 54.54V | 19.84uA |
| 42 | 468.7mV | 54.83V | 19.41uA | 473.6mV | 54.73V | 24.57uA |
| 43 | 470.8mV | 54.58V | 22.07uA | 470.2mV | 55.09V | 20.99uA |
| 44 | 468.1mV | 55.19V | 23.58uA | 468.9mV | 55.13V | 21.69uA |
| 45 | 469.7mV | 54.73V | 21.77uA | 472.5mV | 54.67V | 21.96uA |
| 46 | 468.9mV | 54.45V | 19.46uA | 469.2mV | 54.95V | 21.94uA |
| 47 | 472.5mV | 54.68V | 24.27uA | 472.8mV | 54.39V | 23.52uA |
| 48 | 473.1mV | 55.16V | 20.73uA | 469.0mV | 54.83V | 22.17uA |
| 49 | 473.7mV | 54.36V | 19.69uA | 470.9mV | 54.69V | 20.39uA |
| 50 | 472.2mV | 54.44V | 19.72uA | 469.4mV | 54.81V | 23.34uA |
| 51 | 469.4mV | 55.11V | 23.96uA | 468.3mV | 54.75V | 24.86uA |
| 52 | 473.8mV | 54.92V | 24.61uA | 467.1mV | 55.11V | 20.56uA |
| 53 | 472.6mV | 54.49V | 21.85uA | 472.1mV | 54.90V | 24.80uA |
| 54 | 467.8mV | 54.68V | 23.61uA | 469.6mV | 54.46V | 21.97uA |
| 55 | 471.2mV | 54.71V | 20.24uA | 473.5mV | 55.00V | 21.18uA |
| 56 | 473.4mV | 54.58V | 24.39uA | 468.1mV | 55.07V | 22.26uA |
| 57 | 470.9mV | 54.56V | 19.44uA | 470.5mV | 55.23V | 23.67uA |
| 58 | 473.3mV | 54.37V | 22.42uA | 467.3mV | 54.77V | 22.34uA |
| 59 | 467.1mV | 54.76V | 21.88uA | 470.3mV | 54.77V | 23.55uA |
| 60 | 471.2mV | 54.46V | 23.30uA | 468.3mV | 54.95V | 23.93uA |

# SeCoS Corporation

## Temperature Cycle Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2018.03.06 ~ 2018.04.27
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 469.9mV | 55.11V | 23.58uA | 467.6mV | 54.33V | 23.03uA |
| 62 | 471.1mV | 54.41V | 22.88uA | 467.8mV | 54.89V | 20.00uA |
| 63 | 473.3mV | 55.00V | 19.31uA | 472.9mV | 54.42V | 23.70uA |
| 64 | 468.7mV | 54.95V | 19.97uA | 472.5mV | 55.16V | 24.76uA |
| 65 | 467.8mV | 54.82V | 20.01uA | 472.0mV | 54.33V | 23.66uA |
| 66 | 470.2mV | 54.51V | 24.21uA | 473.6mV | 54.89V | 19.99uA |
| 67 | 471.8mV | 55.02V | 22.60uA | 467.3mV | 54.35V | 24.12uA |
| 68 | 468.9mV | 54.87V | 23.88uA | 468.4mV | 54.52V | 23.96uA |
| 69 | 471.8mV | 54.59V | 24.94uA | 468.5mV | 55.26V | 20.14uA |
| 70 | 471.8mV | 54.84V | 19.99uA | 467.7mV | 54.88V | 20.24uA |
| 71 | 473.8mV | 54.67V | 20.29uA | 473.5mV | 54.95V | 24.78uA |
| 72 | 469.5mV | 55.06V | 24.95uA | 467.9mV | 54.69V | 23.66uA |
| 73 | 467.4mV | 55.14V | 23.92uA | 473.6mV | 54.51V | 19.87uA |
| 74 | 472.6mV | 54.57V | 24.65uA | 472.8mV | 54.34V | 22.17uA |
| 75 | 467.5mV | 54.91V | 21.82uA | 473.8mV | 54.82V | 24.24uA |
| 76 | 467.7mV | 55.11V | 20.83uA | 473.5mV | 54.90V | 20.91uA |
| 77 | 469.1mV | 55.02V | 20.35uA | 467.8mV | 54.63V | 21.90uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## High Temperature High Humidity Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 468.2mV | 55.06V | 19.46uA | 467.9mV | 55.19V | 24.37uA |
| 2 | 471.3mV | 54.67V | 24.97uA | 471.0mV | 54.70V | 21.97uA |
| 3 | 468.4mV | 54.52V | 21.84uA | 471.2mV | 54.52V | 24.15uA |
| 4 | 468.1mV | 55.19V | 24.08uA | 470.2mV | 55.26V | 21.24uA |
| 5 | 471.2mV | 54.99V | 19.41uA | 471.0mV | 54.75V | 20.46uA |
| 6 | 468.6mV | 55.11V | 22.52uA | 473.6mV | 54.37V | 21.62uA |
| 7 | 469.3mV | 55.18V | 24.79uA | 467.7mV | 54.97V | 21.19uA |
| 8 | 473.5mV | 54.80V | 25.14uA | 467.0mV | 54.43V | 23.38uA |
| 9 | 473.2mV | 54.56V | 25.19uA | 469.1mV | 54.90V | 21.47uA |
| 10 | 467.8mV | 55.16V | 23.62uA | 469.3mV | 54.75V | 23.37uA |
| 11 | 472.2mV | 55.01V | 21.05uA | 471.4mV | 55.25V | 20.49uA |
| 12 | 468.8mV | 54.70V | 21.65uA | 473.5mV | 54.48V | 20.77uA |
| 13 | 470.2mV | 55.17V | 23.31uA | 472.5mV | 54.63V | 21.08uA |
| 14 | 472.7mV | 54.57V | 22.63uA | 468.1mV | 54.81V | 23.38uA |
| 15 | 469.8mV | 54.68V | 19.53uA | 471.8mV | 54.58V | 22.57uA |
| 16 | 473.1mV | 54.79V | 19.53uA | 471.0mV | 54.61V | 22.54uA |
| 17 | 472.0mV | 54.60V | 25.09uA | 470.6mV | 54.79V | 20.63uA |
| 18 | 467.1mV | 54.47V | 23.63uA | 469.4mV | 55.14V | 22.36uA |
| 19 | 472.4mV | 55.24V | 23.77uA | 467.0mV | 54.60V | 21.65uA |
| 20 | 468.0mV | 55.01V | 24.49uA | 473.8mV | 54.78V | 21.90uA |
| 21 | 471.8mV | 55.20V | 24.54uA | 467.6mV | 54.85V | 20.47uA |
| 22 | 471.0mV | 54.34V | 22.29uA | 467.3mV | 54.52V | 20.58uA |
| 23 | 473.2mV | 54.94V | 21.03uA | 472.6mV | 55.21V | 23.81uA |
| 24 | 470.5mV | 55.24V | 22.42uA | 470.1mV | 54.44V | 22.27uA |
| 25 | 470.9mV | 54.93V | 22.09uA | 467.2mV | 54.92V | 22.68uA |
| 26 | 473.3mV | 55.07V | 20.04uA | 468.5mV | 54.86V | 24.42uA |
| 27 | 467.6mV | 55.15V | 21.66uA | 470.4mV | 54.41V | 22.79uA |
| 28 | 469.3mV | 54.79V | 22.28uA | 472.6mV | 54.72V | 21.04uA |
| 29 | 468.2mV | 54.73V | 21.76uA | 473.6mV | 54.81V | 24.02uA |
| 30 | 472.2mV | 55.12V | 23.79uA | 468.8mV | 54.49V | 25.05uA |

# SeCoS Corporation

## High Temperature High Humidity Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 467.8mV | 54.80V | 23.85uA | 473.4mV | 54.67V | 19.73uA |
| 32 | 470.9mV | 55.24V | 22.18uA | 471.5mV | 55.24V | 19.57uA |
| 33 | 468.7mV | 54.38V | 22.63uA | 468.7mV | 54.60V | 21.80uA |
| 34 | 472.3mV | 54.65V | 20.87uA | 470.0mV | 54.72V | 24.64uA |
| 35 | 468.5mV | 54.33V | 19.43uA | 470.2mV | 54.89V | 19.24uA |
| 36 | 472.1mV | 55.13V | 21.67uA | 473.8mV | 55.18V | 22.67uA |
| 37 | 472.2mV | 55.12V | 21.87uA | 469.6mV | 54.99V | 21.44uA |
| 38 | 469.6mV | 55.19V | 20.50uA | 468.7mV | 54.84V | 21.14uA |
| 39 | 473.9mV | 55.10V | 23.15uA | 471.1mV | 54.68V | 22.90uA |
| 40 | 469.6mV | 54.77V | 22.64uA | 470.3mV | 54.33V | 20.91uA |
| 41 | 469.1mV | 54.75V | 21.52uA | 469.4mV | 55.20V | 21.20uA |
| 42 | 468.6mV | 54.89V | 21.12uA | 470.2mV | 54.65V | 20.37uA |
| 43 | 468.4mV | 54.66V | 22.26uA | 470.7mV | 55.07V | 23.51uA |
| 44 | 469.6mV | 55.02V | 20.43uA | 473.5mV | 54.93V | 20.48uA |
| 45 | 474.0mV | 54.83V | 21.39uA | 470.8mV | 54.86V | 23.71uA |
| 46 | 471.7mV | 54.56V | 24.23uA | 469.7mV | 55.04V | 21.75uA |
| 47 | 472.0mV | 54.57V | 20.59uA | 473.3mV | 54.49V | 20.38uA |
| 48 | 470.2mV | 54.74V | 21.82uA | 473.7mV | 55.25V | 24.49uA |
| 49 | 473.3mV | 54.81V | 20.35uA | 468.8mV | 54.51V | 19.56uA |
| 50 | 468.1mV | 55.06V | 21.78uA | 473.6mV | 54.49V | 21.69uA |
| 51 | 467.3mV | 55.11V | 19.74uA | 473.5mV | 54.86V | 23.24uA |
| 52 | 473.6mV | 54.32V | 22.44uA | 467.9mV | 54.80V | 21.19uA |
| 53 | 468.1mV | 55.08V | 24.89uA | 470.3mV | 55.00V | 21.05uA |
| 54 | 468.2mV | 54.59V | 22.41uA | 473.7mV | 55.21V | 24.34uA |
| 55 | 473.2mV | 54.76V | 20.79uA | 472.6mV | 55.12V | 22.12uA |
| 56 | 469.4mV | 55.27V | 20.97uA | 467.8mV | 55.08V | 24.92uA |
| 57 | 467.8mV | 54.68V | 19.92uA | 467.5mV | 54.45V | 23.45uA |
| 58 | 473.2mV | 55.19V | 21.58uA | 472.5mV | 54.43V | 24.10uA |
| 59 | 472.7mV | 54.71V | 22.03uA | 473.8mV | 54.89V | 25.00uA |
| 60 | 471.2mV | 54.47V | 23.44uA | 472.6mV | 54.59V | 20.22uA |

# SeCoS Corporation

## High Temperature High Humidity Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 471.5mV | 55.15V | 22.19uA | 467.4mV | 55.12V | 20.27uA |
| 62 | 473.3mV | 55.16V | 22.28uA | 471.6mV | 55.24V | 22.26uA |
| 63 | 468.6mV | 54.83V | 19.98uA | 469.0mV | 54.57V | 23.14uA |
| 64 | 470.4mV | 54.58V | 20.43uA | 468.2mV | 54.54V | 22.91uA |
| 65 | 468.4mV | 54.42V | 20.66uA | 468.9mV | 55.04V | 19.37uA |
| 66 | 473.7mV | 55.10V | 21.25uA | 472.8mV | 54.99V | 20.91uA |
| 67 | 471.2mV | 54.91V | 24.62uA | 473.3mV | 54.72V | 22.70uA |
| 68 | 471.6mV | 54.48V | 20.24uA | 468.9mV | 54.79V | 19.89uA |
| 69 | 471.6mV | 54.61V | 22.49uA | 468.0mV | 55.03V | 24.56uA |
| 70 | 473.8mV | 54.42V | 23.24uA | 470.7mV | 55.25V | 23.41uA |
| 71 | 471.1mV | 55.16V | 20.97uA | 471.3mV | 54.95V | 20.19uA |
| 72 | 467.9mV | 54.89V | 20.27uA | 469.8mV | 55.24V | 21.98uA |
| 73 | 472.5mV | 54.73V | 22.81uA | 472.3mV | 55.20V | 24.48uA |
| 74 | 471.7mV | 54.89V | 21.10uA | 470.3mV | 54.94V | 24.29uA |
| 75 | 471.7mV | 54.52V | 22.46uA | 468.0mV | 54.52V | 23.62uA |
| 76 | 473.5mV | 55.24V | 22.38uA | 468.4mV | 55.04V | 22.64uA |
| 77 | 472.1mV | 54.42V | 22.83uA | 468.5mV | 54.67V | 20.15uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## High Temper High Humidity Reverse Bies Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 470.1mV | 54.40V | 20.06uA | 470.5mV | 54.42V | 20.83uA |
| 2 | 467.6mV | 54.82V | 21.22uA | 473.9mV | 54.68V | 24.98uA |
| 3 | 469.2mV | 54.92V | 23.65uA | 469.5mV | 54.35V | 23.55uA |
| 4 | 473.6mV | 55.04V | 21.82uA | 471.3mV | 54.95V | 22.16uA |
| 5 | 467.8mV | 54.81V | 19.56uA | 473.4mV | 54.37V | 22.01uA |
| 6 | 468.7mV | 54.37V | 21.58uA | 468.9mV | 54.92V | 23.31uA |
| 7 | 469.1mV | 55.21V | 21.56uA | 469.3mV | 54.76V | 20.81uA |
| 8 | 467.2mV | 54.76V | 21.24uA | 467.5mV | 54.60V | 20.19uA |
| 9 | 472.1mV | 54.38V | 22.97uA | 471.2mV | 54.38V | 21.19uA |
| 10 | 470.1mV | 54.46V | 21.48uA | 469.9mV | 54.87V | 24.63uA |
| 11 | 470.8mV | 54.73V | 19.64uA | 467.1mV | 54.42V | 24.42uA |
| 12 | 472.8mV | 54.44V | 19.81uA | 469.6mV | 54.74V | 21.83uA |
| 13 | 467.7mV | 55.18V | 20.52uA | 471.7mV | 54.81V | 20.53uA |
| 14 | 470.7mV | 54.54V | 22.05uA | 468.9mV | 54.83V | 22.49uA |
| 15 | 470.1mV | 54.74V | 22.55uA | 467.6mV | 54.93V | 24.95uA |
| 16 | 473.5mV | 54.83V | 19.97uA | 472.9mV | 54.73V | 19.36uA |
| 17 | 473.3mV | 54.39V | 23.71uA | 468.7mV | 55.25V | 22.75uA |
| 18 | 468.0mV | 54.46V | 22.55uA | 467.4mV | 55.00V | 24.21uA |
| 19 | 467.4mV | 54.99V | 23.96uA | 469.1mV | 54.86V | 20.14uA |
| 20 | 473.0mV | 55.12V | 22.91uA | 472.2mV | 54.48V | 23.46uA |
| 21 | 467.4mV | 55.09V | 24.40uA | 472.9mV | 54.70V | 21.43uA |
| 22 | 470.5mV | 54.89V | 19.40uA | 467.3mV | 54.92V | 20.85uA |
| 23 | 473.0mV | 54.46V | 22.27uA | 467.7mV | 54.53V | 22.60uA |
| 24 | 472.5mV | 54.43V | 23.45uA | 473.7mV | 54.97V | 20.84uA |
| 25 | 467.5mV | 54.99V | 19.76uA | 473.5mV | 54.48V | 20.76uA |
| 26 | 467.5mV | 54.89V | 20.13uA | 469.3mV | 54.50V | 20.80uA |
| 27 | 470.9mV | 55.23V | 23.91uA | 471.2mV | 55.24V | 24.82uA |
| 28 | 469.3mV | 54.36V | 23.77uA | 467.7mV | 54.33V | 20.91uA |
| 29 | 472.4mV | 54.60V | 21.57uA | 469.4mV | 55.26V | 21.45uA |
| 30 | 471.9mV | 54.89V | 23.35uA | 469.6mV | 54.77V | 19.69uA |

# SeCoS Corporation

## High Temper High Humidity Reverse Bies Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 31 | 469.5mV | 55.06V | 24.12uA | 470.9mV | 54.98V | 20.15uA |
| 32 | 467.2mV | 54.54V | 23.87uA | 467.2mV | 55.19V | 20.14uA |
| 33 | 470.9mV | 54.68V | 24.94uA | 467.3mV | 55.16V | 23.88uA |
| 34 | 473.8mV | 55.01V | 21.06uA | 468.0mV | 54.65V | 23.23uA |
| 35 | 468.4mV | 55.06V | 23.63uA | 473.5mV | 55.07V | 22.63uA |
| 36 | 472.0mV | 55.23V | 21.82uA | 473.4mV | 54.42V | 19.67uA |
| 37 | 470.3mV | 54.45V | 20.22uA | 467.0mV | 54.72V | 21.07uA |
| 38 | 471.5mV | 54.86V | 19.36uA | 472.2mV | 55.14V | 23.86uA |
| 39 | 473.1mV | 54.42V | 22.24uA | 469.8mV | 54.55V | 19.29uA |
| 40 | 471.6mV | 54.94V | 22.90uA | 472.8mV | 55.09V | 23.22uA |
| 41 | 467.7mV | 54.66V | 19.43uA | 470.9mV | 54.31V | 23.54uA |
| 42 | 470.4mV | 55.08V | 19.94uA | 470.0mV | 54.77V | 22.07uA |
| 43 | 468.4mV | 54.55V | 24.37uA | 470.2mV | 54.66V | 20.95uA |
| 44 | 468.5mV | 54.43V | 20.98uA | 471.8mV | 55.11V | 20.50uA |
| 45 | 471.3mV | 55.14V | 23.37uA | 473.1mV | 54.40V | 23.62uA |
| 46 | 467.4mV | 54.81V | 24.95uA | 467.7mV | 54.43V | 21.13uA |
| 47 | 468.4mV | 54.67V | 23.34uA | 471.2mV | 54.71V | 20.46uA |
| 48 | 471.0mV | 55.13V | 20.47uA | 472.5mV | 54.36V | 19.29uA |
| 49 | 469.4mV | 54.43V | 25.03uA | 473.3mV | 55.17V | 22.69uA |
| 50 | 473.2mV | 54.56V | 23.03uA | 469.1mV | 55.24V | 21.10uA |
| 51 | 474.0mV | 54.47V | 20.73uA | 472.3mV | 54.82V | 21.09uA |
| 52 | 473.4mV | 54.35V | 24.48uA | 468.2mV | 54.71V | 19.96uA |
| 53 | 469.8mV | 55.07V | 22.62uA | 468.0mV | 55.24V | 24.02uA |
| 54 | 467.4mV | 55.26V | 19.96uA | 472.4mV | 54.84V | 22.51uA |
| 55 | 473.0mV | 54.66V | 22.11uA | 472.5mV | 55.15V | 23.79uA |
| 56 | 471.3mV | 55.05V | 21.65uA | 467.6mV | 55.19V | 21.07uA |
| 57 | 470.6mV | 55.00V | 21.35uA | 468.1mV | 54.43V | 19.87uA |
| 58 | 473.8mV | 54.52V | 21.94uA | 470.6mV | 55.16V | 22.56uA |
| 59 | 467.5mV | 54.98V | 21.39uA | 473.8mV | 54.93V | 24.75uA |
| 60 | 467.3mV | 54.71V | 20.14uA | 469.2mV | 54.67V | 21.07uA |

# SeCoS Corporation

## High Temper High Humidity Reverse Bies Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2018.03.13 ~ 2018.04.25
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 61 | 470.8mV | 54.82V | 21.79uA | 471.6mV | 55.08V | 22.04uA |
| 62 | 469.1mV | 54.59V | 23.63uA | 470.7mV | 54.90V | 19.62uA |
| 63 | 470.4mV | 55.07V | 24.62uA | 473.5mV | 55.19V | 22.06uA |
| 64 | 467.4mV | 55.27V | 19.52uA | 470.1mV | 54.96V | 20.19uA |
| 65 | 471.6mV | 54.45V | 20.74uA | 471.3mV | 55.24V | 24.04uA |
| 66 | 470.5mV | 55.13V | 24.51uA | 470.4mV | 55.16V | 21.94uA |
| 67 | 468.0mV | 54.78V | 22.61uA | 470.4mV | 54.32V | 24.84uA |
| 68 | 468.5mV | 54.46V | 22.73uA | 468.8mV | 54.36V | 22.25uA |
| 69 | 470.7mV | 54.55V | 24.78uA | 467.8mV | 54.60V | 24.03uA |
| 70 | 468.8mV | 54.95V | 25.14uA | 471.6mV | 54.33V | 24.59uA |
| 71 | 468.9mV | 54.55V | 22.42uA | 468.5mV | 55.15V | 24.44uA |
| 72 | 470.2mV | 54.46V | 21.32uA | 471.4mV | 54.89V | 22.61uA |
| 73 | 471.7mV | 54.56V | 22.52uA | 472.7mV | 54.35V | 24.26uA |
| 74 | 470.6mV | 54.53V | 23.95uA | 468.9mV | 54.41V | 24.33uA |
| 75 | 469.6mV | 54.49V | 24.13uA | 471.8mV | 54.50V | 24.16uA |
| 76 | 467.6mV | 54.67V | 22.46uA | 471.6mV | 54.85V | 21.59uA |
| 77 | 467.1mV | 54.70V | 23.63uA | 470.0mV | 54.60V | 21.22uA |

Made By: King Huang

Approval: Peter Yang

# SeCoS Corporation

## Solderability Test Data

Report No : T180430-140P
Part No : SCS140P-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<520mV@IF=1A, VB>40V@IR=1mA, IR<100uA@VR=40V
Test Condition: 245℃ ± 5℃, 5Sec
Test Date: 2018.04.28
Test Standard : JESD22 STANDER Method-B102
Operator: Leo Hsia

Test Result: PASS

| | Before | | | After | | |
|---|---|---|---|---|---|---|
| No | VF | VB | IR | VF | VB | IR |
| 1 | 473.3mV | 54.31V | 22.80uA | 470.8mV | 55.06V | 20.62uA |
| 2 | 471.2mV | 54.59V | 21.23uA | 468.9mV | 54.47V | 19.70uA |
| 3 | 470.1mV | 54.36V | 24.54uA | 468.6mV | 54.95V | 19.62uA |
| 4 | 471.8mV | 54.48V | 23.70uA | 471.0mV | 54.62V | 21.37uA |
| 5 | 474.0mV | 55.10V | 22.80uA | 472.7mV | 55.18V | 21.79uA |
| 6 | 468.6mV | 54.95V | 20.30uA | 472.4mV | 54.53V | 22.17uA |
| 7 | 469.7mV | 55.13V | 23.87uA | 468.8mV | 54.47V | 19.82uA |
| 8 | 468.4mV | 54.89V | 20.49uA | 473.1mV | 54.48V | 23.07uA |
| 9 | 471.3mV | 55.03V | 21.58uA | 473.6mV | 55.25V | 23.83uA |
| 10 | 467.8mV | 54.86V | 19.35uA | 468.8mV | 54.37V | 23.78uA |

Made By: King Huang

Approval: Peter Yang

化學實驗室-高雄 Chemical Laboratory - Kao., SGS Taiwan Ltd.

# 試驗報告

號碼(No.) : KA/2017/61160 日期(Date) : 2017/06/15 

# Test Report

義典科技股份有限公司
E'DALE TECHNOLOGY CO., LTD.
72242 台南市佳里區六安里六安130號/江蘇省無錫市錫山區東港鎮錫港東路35號
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NO. 35, XIGANG EAST ROAD, DONGGANG TOWN, XISHAN DIST., WUXI CITY, JIANG SU, CHINA

**以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as)：**

| | | |
|---|---|---|
| 樣品名稱(Sample Description) | : | EPOXY MOLDING COMPOUND |
| 樣品型號(Style/Item No.) | : | ELER-8-SERIES |
| 收件日期(Sample Receiving Date) | : | 2017/06/13 |
| 測試期間(Testing Period) | : | 2017/06/13 TO 2017/06/15 |
| 送樣廠商(Sample Submitted By) | : | 義典科技股份有限公司 (E'DALE TECHNOLOGY CO., LTD.) |

==========

**測試需求(Test Requested)** :

(1) 依據客户指定，參考RoHS2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample.)

(2) 其他測試項目請見下一頁 . (Please refer to next pages for the other item(s).)

**測試結果(Test Results)** : 請見下一頁 (Please refer to next pages).

**結　論(Conclusion)** :

(1) 根據客户所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS指令暨(EU) 2015/863之限值要求. (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS and amending Directive (EU) 2015/863.)

報告簽署人/Ray Chang, Ph.D./Manager -Tech
Signed for and on behalf of
SGS Taiwan Limited

# 試驗報告



# Test Report

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**測試結果(Test Results)**

測試部位(PART NAME)No.1 : 黑色 EPOXY MOLDING COMPOUND
(BLACK EPOXY MOLDING COMPOUND)

| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| 鎘 / Cadmium (Cd) | mg/kg | 參考IEC 62321-5:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5:2013 and performed by ICP-AES. | 2 | n.d. | 100 |
| 鉛 / Lead (Pb) | mg/kg | 參考IEC 62321-5:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5:2013 and performed by ICP-AES. | 2 | n.d. | 1000 |
| 汞 / Mercury (Hg) | mg/kg | 參考IEC 62321-4:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4:2013 and performed by ICP-AES. | 2 | n.d. | 1000 |
| 六價鉻 / Hexavalent Chromium Cr(VI) | mg/kg | 參考IEC 62321-7-2:2017，以UV-VIS檢測. / With reference to IEC 62321-7-2:2017 and performed by UV-VIS. | 8 | n.d. | 1000 |

# 試驗報告



# Test Report

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| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| **多溴聯苯總和 / Sum of PBBs** | mg/kg | 參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 and performed by GC/MS. | - | n.d. | 1000 |
| 一溴聯苯 / Monobromobiphenyl | mg/kg | | 5 | n.d. | - |
| 二溴聯苯 / Dibromobiphenyl | mg/kg | | 5 | n.d. | - |
| 三溴聯苯 / Tribromobiphenyl | mg/kg | | 5 | n.d. | - |
| 四溴聯苯 / Tetrabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 五溴聯苯 / Pentabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 六溴聯苯 / Hexabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 七溴聯苯 / Heptabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 八溴聯苯 / Octabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 九溴聯苯 / Nonabromobiphenyl | mg/kg | | 5 | n.d. | - |
| 十溴聯苯 / Decabromobiphenyl | mg/kg | | 5 | n.d. | - |
| **多溴聯苯醚總和 / Sum of PBDEs** | mg/kg | 參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 and performed by GC/MS. | - | n.d. | 1000 |
| 一溴聯苯醚 / Monobromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 二溴聯苯醚 / Dibromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 三溴聯苯醚 / Tribromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 四溴聯苯醚 / Tetrabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 五溴聯苯醚 / Pentabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 六溴聯苯醚 / Hexabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 七溴聯苯醚 / Heptabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 八溴聯苯醚 / Octabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 九溴聯苯醚 / Nonabromodiphenyl ether | mg/kg | | 5 | n.d. | - |
| 十溴聯苯醚 / Decabromodiphenyl ether | mg/kg | | 5 | n.d. | - |

# 試驗報告



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| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| 鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5) | mg/kg | 參考IEC 62321-8:2017, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS. | 50 | n.d. | 1000 |
| 鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7) | mg/kg | | 50 | n.d. | 1000 |
| 鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2) | mg/kg | | 50 | n.d. | 1000 |
| 鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7) | mg/kg | | 50 | n.d. | 1000 |
| 鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0, 68515-49-1) | mg/kg | | 50 | n.d. | - |
| 鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0, 68515-48-0) | mg/kg | | 50 | n.d. | - |
| 鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0) | mg/kg | | 50 | n.d. | - |
| 鄰苯二甲酸二(2-甲氧基乙基)酯 / DMEP (Bis (2-methoxyethyl) phthalate) (CAS No.: 117-82-8) | mg/kg | | 50 | n.d. | - |
| 鄰苯二甲酸二正戊酯/ DNPP(Di-n-pentyl phthalate) (CAS No.: 131-18-0) | mg/kg | | 50 | n.d. | - |
| 鄰苯二甲酸二己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 84-75-3) | mg/kg | | 50 | n.d. | - |

# 試驗報告



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| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| 銻 / Antimony (Sb) | mg/kg | 參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測銻含量. / With reference to US EPA Method 3052 for Antimony Content. Analysis was performed by ICP-AES. | 2 | n.d. | - |
| 鈹 / Beryllium (Be) | mg/kg | 參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測鈹含量. / With reference to US EPA Method 3052 for Beryllium Content. Analysis was performed by ICP-AES. | 2 | n.d. | - |
| 砷 / Arsenic (As) | mg/kg | 參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測砷含量. / With reference to US EPA Method 3052 for Arsenic Content. Analysis was performed by ICP-AES. | 2 | n.d. | - |
| 磷 / Phosphorus (P) | mg/kg | 參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測磷含量. / With reference to US EPA Method 3052 for Phosphorus Content. Analysis was performed by ICP-AES. | 10 | 115 | - |
| 六溴環十二烷及所有主要被辨別出的異構物 / 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 | 參考IEC 62321: 2008方法，以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS. | 5 | n.d. | - |
| 四溴雙酚-A / Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7) | mg/kg | 參考RSTS-E&E-121方法，以液相層析/質譜儀分析. / With reference to RSTS-E&E-121. Analysis was performed by LC/MS. | 10 | n.d. | - |

# 試驗報告



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| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| 紅磷 / Red phosphorus | ** | 本測試以熱裂解-氣相層析/質譜儀分析. / Analysis was performed by Pyrolyzer-GC/MS. | - | Negative | - |
| 聚氯乙烯 / PVC | ** | 以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test. | - | Negative | - |
| 全氟辛酸(銨) / PFOA (CAS No.: 335-67-1) | mg/kg | 參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS. | 10 | n.d. | - |
| 全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS) | mg/kg | 參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS. | 10 | n.d. | - |
| **鹵素 / Halogen** | | | | | |
| 鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 014762-94-8) | mg/kg | 參考BS EN 14582:2016，以離子層析儀分析. / With reference to BS EN 14582:2016. Analysis was performed by IC. | 50 | n.d. | - |
| 鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1) | mg/kg | | 50 | 104 | - |
| 鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 010097-32-2) | mg/kg | | 50 | n.d. | - |
| 鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 014362-44-8) | mg/kg | | 50 | n.d. | - |

# 試驗報告



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| 測試項目 (Test Items) | 單位 (Unit) | 測試方法 (Method) | 方法偵測極限值 (MDL) | 結果 (Result) No.1 | 限值 (Limit) |
|---|---|---|---|---|---|
| **多環芳香烴 / Polynuclear Aromatic Hydrocarbons (PAHs)** | | | | | |
| 苊 / Acenaphthene (CAS No.: 83-32-9) | mg/kg | 參考AfPS GS 2014:01 PAK方法，以氣相層析/質譜儀檢測. / With reference to AfPS GS 2014:01 PAK method. Analysis was performed by GC/MS. | 0.2 | n.d. | - |
| 苊烯 / Acenaphthylene (CAS No.: 208-96-8) | mg/kg | | 0.2 | n.d. | - |
| 蒽 / Anthracene (CAS No.: 120-12-7) | mg/kg | | 0.2 | n.d. | - |
| 苯駢蒽 / Benzo[a]anthracene (CAS No.: 56-55-3) | mg/kg | | 0.2 | n.d. | - |
| 苯駢(a)芘 / Benzo[a]pyrene (CAS No.: 50-32-8) | mg/kg | | 0.2 | n.d. | - |
| 苯(b)苯駢芴 / Benzo[b]fluoranthene (CAS No.: 205-99-2) | mg/kg | | 0.2 | n.d. | - |
| 苯駢苝 / Benzo[g,h,i]perylene (CAS No.: 191-24-2) | mg/kg | | 0.2 | n.d. | - |
| 苯(k)苯駢芴 / 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. | - |
| 二苯駢蒽 / Dibenzo[a,h]anthracene (CAS No.: 53-70-3) | mg/kg | | 0.2 | n.d. | - |
| 苯駢芴 / Fluoranthene (CAS No.: 206-44-0) | mg/kg | | 0.2 | n.d. | - |
| 芴 / Fluorene (CAS No.: 86-73-7) | mg/kg | | 0.2 | n.d. | - |
| 茚酮芘 / Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5) | mg/kg | | 0.2 | n.d. | - |
| 萘 / Naphthalene (CAS No.: 91-20-3) | mg/kg | | 0.2 | n.d. | - |
| 菲 / Phenanthrene (CAS No.: 85-01-8) | mg/kg | | 0.2 | n.d. | - |
| 芘 / Pyrene (CAS No.: 129-00-0) | mg/kg | | 0.2 | n.d. | - |
| 苯(j)苯駢芴 / Benzo[j]fluoranthene (CAS No.: 205-82-3) | mg/kg | | 0.2 | n.d. | - |
| 苯駢(e)芘 / Benzo[e]pyrene (CAS No.: 192-97-2) | mg/kg | | 0.2 | n.d. | - |
| 多環芳香烴18項總和 / Sum of 18 PAHs | mg/kg | | - | n.d. | - |

# 試驗報告



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**備註(Note)：**

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. **= Qualitative analysis (No Unit) 定性分析(無單位)
6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
7. 聚氯乙烯測試由SGS其他實驗室執行 (The PVC test was subcontracted to other SGS Laboratory. )
8. 紅磷定性分析測試由SGS其他實驗室執行
   (The Red Phosphorus test was subcontracted to other SGS Laboratory. )

**PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010**

PFOS濃度在物質或製備中不得超過0.001%(10ppm)，在半成品、成品或零部件中不得超過0.1%(1000ppm)，在紡織品或塗層材料中不得超過1μg/m$^2$。(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/m$^2$.)

全氟辛烷磺酸指全氟辛烷磺酸和它的衍生物包括全氟辛烷磺酸, 全氟辛基磺醯胺, N-甲基全氟辛烷磺酰胺, N-乙基全氟辛烷磺酰胺, N-甲基全氟辛基磺酰基氨基乙醇, N-乙基全氟辛基磺酰基氨基乙醇。(PFOS refer to Perfluorooctanesulfonic acid and its derivatives including Perfluorooctanesulfonic acid, Perfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamide, N-Ethylperfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamidoethanol and N-Ethylperfluoroctane sulfonamidoethanol.)

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**德國產品安全委員會(AfPS) GS PAHs 要求 /**
**AfPS (German commission for Product Safety): GS PAHs requirements**

| 項目 (Parameter) | 第1類 (Category 1) | 第2類 (Category 2) | | 第3類 (Category 3) | |
|---|---|---|---|---|---|
| | 意圖放入嘴內的材料或玩具會與皮膚有所接觸(超過30秒). (Material indented to be put in the mouth or toys with intended skin contact (longer than 30 s).) | 不屬於第1類的材料並可預見與皮膚接觸逾30秒(長期或經常與皮膚接觸). (Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin or frequent contact).) | | 可預見與皮膚接觸短於30秒(短期與皮膚接觸), 以及不屬於第1類或第2類的材料. (Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).) | |
| | | 列於2009/48/EC之玩具 (Toy under 2009/48/EC) | 列於德國產品安全法之其他產品 (Other products under ProdSG) | 列於2009/48/EC之玩具 (Toy under 2009/48/EC) | 列於德國產品安全法之其他產品 (Other products under ProdSG) |
| Naphthalene | < 1 | < 2 | | < 10 | |
| Acenaphthylene<br>Acenaphthene<br>Fluorene<br>Phenanthrene<br>Anthracene<br>Fluoranthene<br>Pyrene | < 1 Sum | < 5 Sum | < 10 Sum | < 20 Sum | < 50 Sum |
| Benzo[a]anthracene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Chrysene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[b]fluoranthene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[j]fluoranthene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[k]fluoranthene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[a]pyrene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[e]pyrene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Indeno[1,2,3-c,d] pyrene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Dibenzo[a,h]anthracene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| Benzo[g,h,i]perylene | < 0.2 | < 0.2 | < 0.5 | < 0.5 | < 1 |
| 18項PAH總濃度 (Sum of 18 PAH) | < 1 | < 5 | < 10 | < 20 | < 50 |

# 試驗報告

# Test Report



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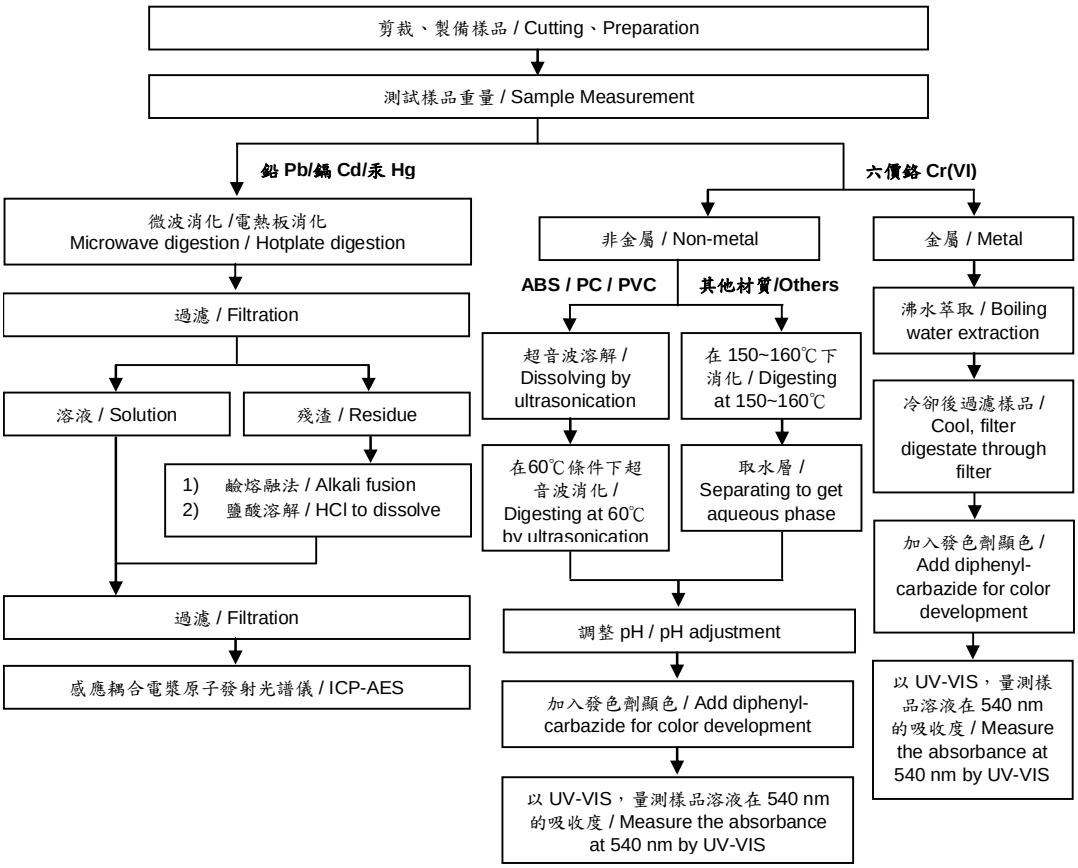
## 重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.（$Cr^{6+}$ test method excluded）

- 測試人員：劉俊宏/ Technician : Jony Liu
- 測試負責人：張伯睿/ Supervisor: Ray Chang



# 試驗報告



# Test Report

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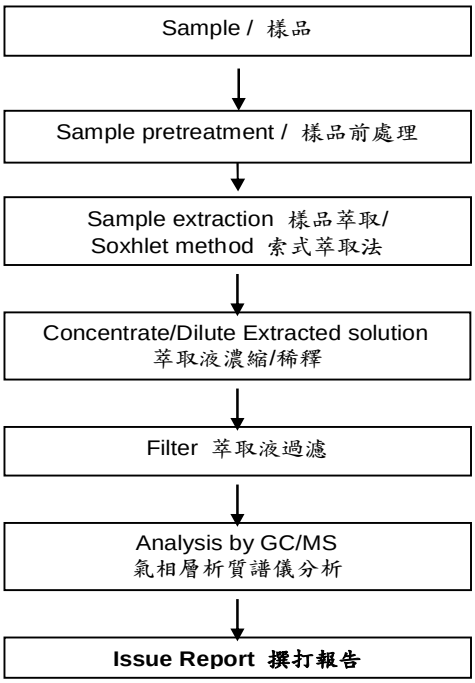
## 多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

1)測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen
2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



# 試驗報告



# Test Report

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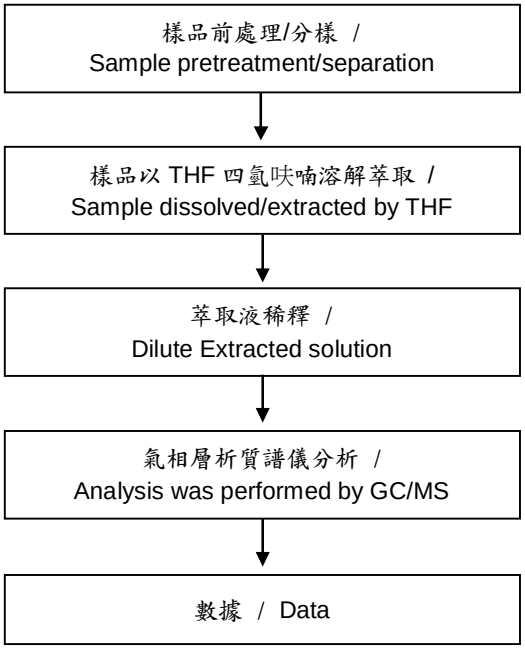
**可塑劑分析流程圖 / Analytical flow chart of phthalate content**

- 測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen
- 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang

**【測試方法/Test method: IEC 62321-8】**



# 試驗報告



# Test Report

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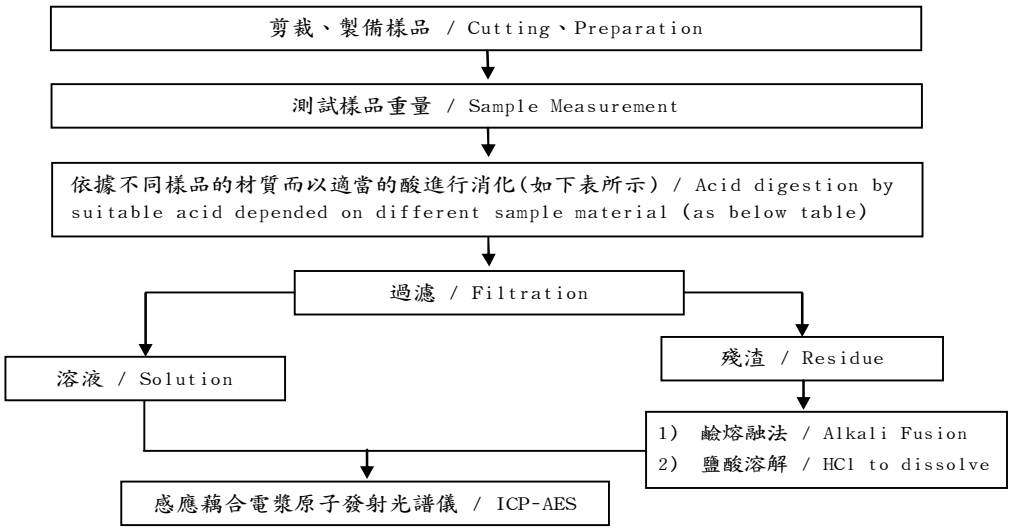
1) 根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
3) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang

**元素以 ICP-AES 分析的消化流程圖**

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




| | |
|---|---|
| 鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder | 王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, $HNO_3$, HCl, HF, $H_2O_2$ |
| 玻璃 / Glass | 硝酸,氫氟酸 / $HNO_3$/HF |
| 金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic | 王水 / Aqua regia |
| 銀 / Silver | 硝酸 / $HNO_3$ |
| 塑膠 / Plastic | 硫酸,雙氧水,硝酸,鹽酸 / $H_2SO_4$, $H_2O_2$, $HNO_3$, HCl |
| 其他 / Others | 加入任何酸至完全溶解 / Any acid to total digestion |

# 試驗報告

# Test Report



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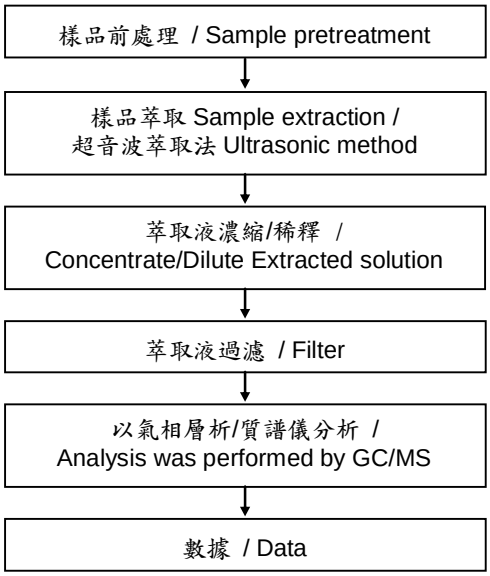
**六溴環十二烷分析流程圖 / HBCDD analytical flow chart**

1) 測試人員：陳威錚/ Name of the person who made measurement: Dorothy Chen
2) 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



# 試驗報告



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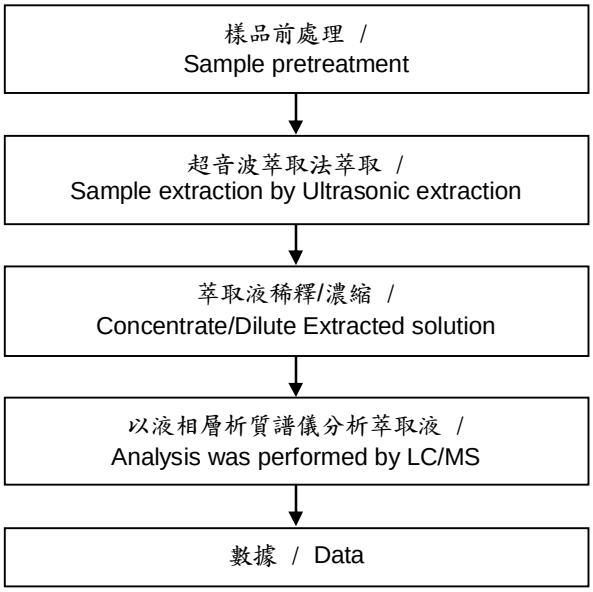
## 四溴雙酚-A分析流程圖 / TBBP-A analytical flow chart

- 測試人員：黃璟瓔/ Name of the person who made measurement: Ginny Huang
- 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



# 試驗報告



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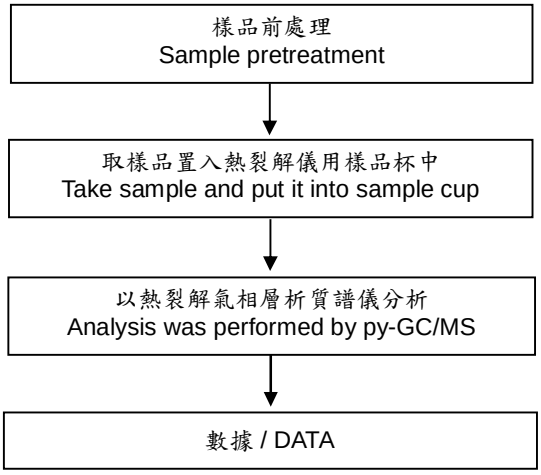
**紅磷分析流程 / Analytical flow chart of Red phosphorus**

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang



# 試驗報告



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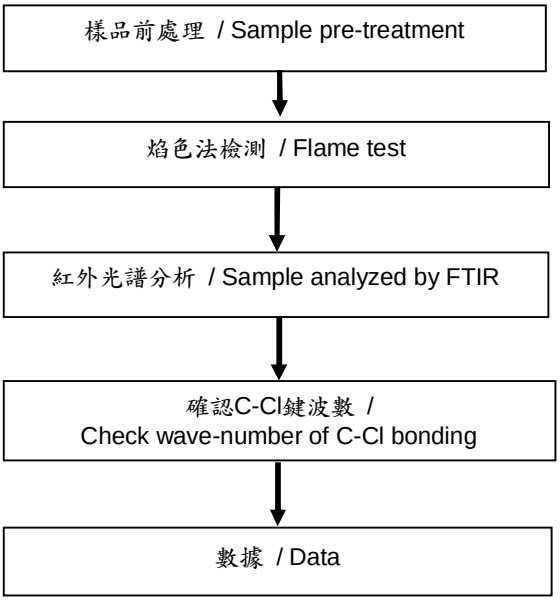
## 聚氯乙烯物質判定分析流程圖 /

## Analysis flow chart for determination of PVC in material

1)測試人員：戴秀純 / Name of the person who made measurement: Hannah Tai
2)測試負責人：林立翔 / Name of the person in charge of measurement: Roger Lin



# 試驗報告



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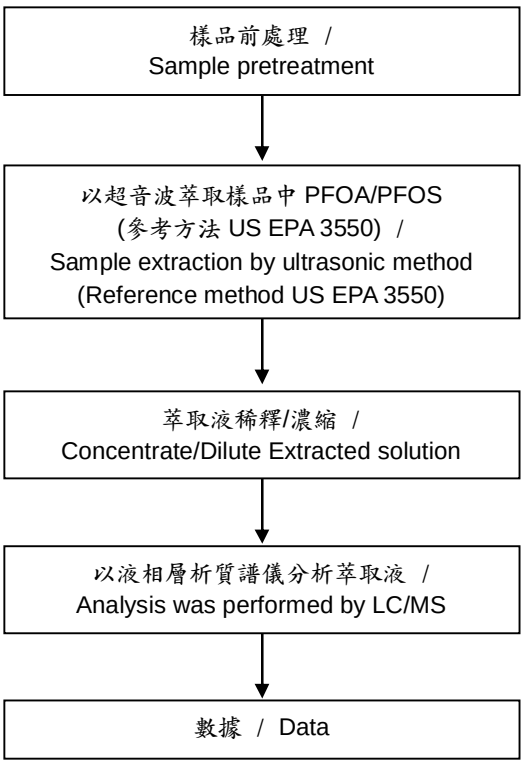
## 全氟辛酸(銨)/ 全氟辛烷磺酸分析流程圖 /
## Analytical flow chart of PFOA/PFOS content

1)測試人員：黃璟瓔 / Name of the person who made measurement: Ginny Huang

2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



# 試驗報告

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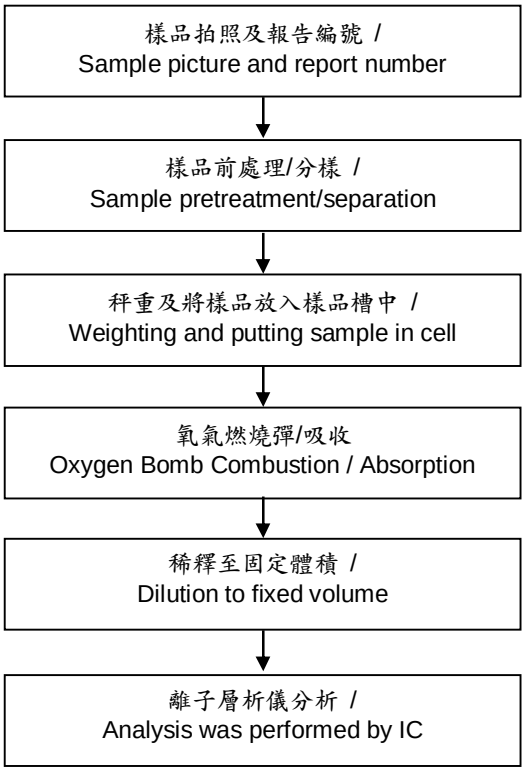
## 鹵素分析流程圖 / Analytical flow chart of halogen content

1) 測試人員：洪秀眞/ Name of the person who made measurement: Jean Hung
2) 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



# 試驗報告



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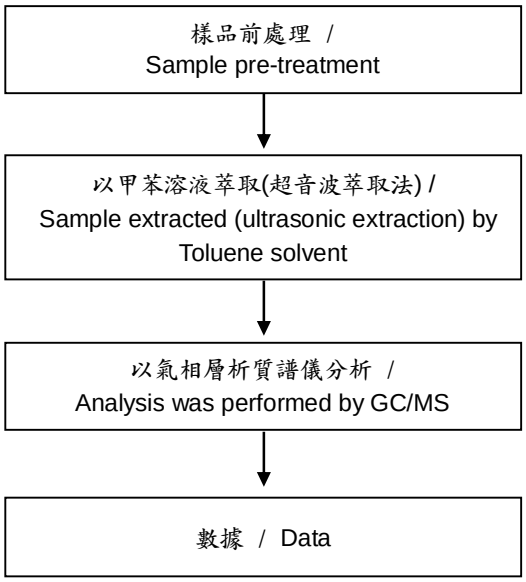
## 多苯環芳香族化合物分析流程圖 /
## PAHs (Poly Aromatic Hydrocarbons) analytical flow chart

1)測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen

2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



# 試驗報告



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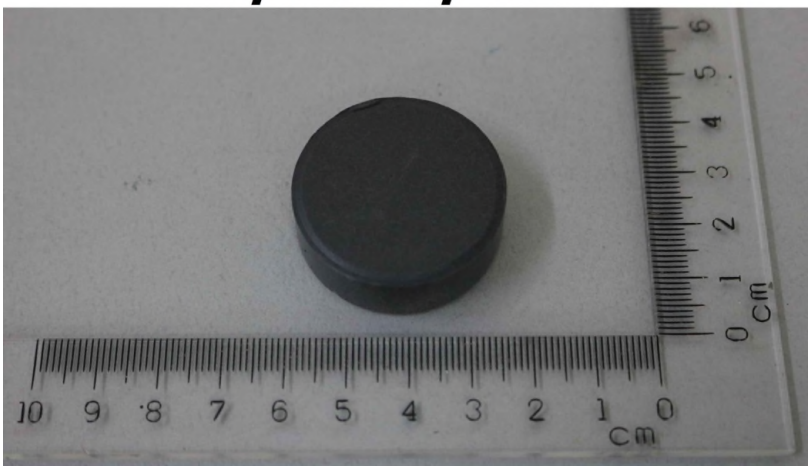
*** 照片中如有箭頭標示，則表示爲實際檢測之樣品/部位. ***
**(The tested sample / part is marked by an arrow if it's shown on the photo.)**

**KA/2017/61160**




** 報告結尾 (End of Report) **