(wafer1,0,0,-1,-1,2,2) Characteristics

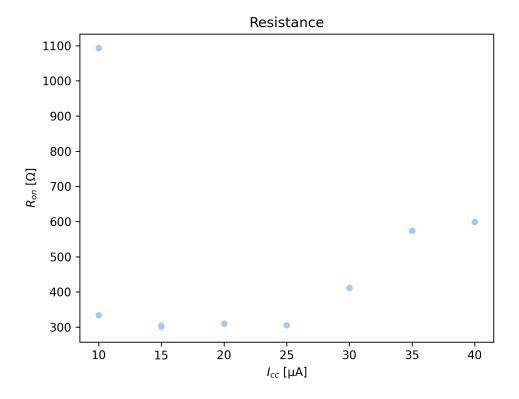
• Cell Size: 10um

Times Accessed: 27

• Last Measurement: 2022/February/28 at 05:01PM

Summary

Cycle #	Set Icc (μA)	Set Voltage (V)	R_on (Ω)	R2
1	10.0	2.80	333.83	1.000
2	10.0	2.80	96753327.60	0.194
3	20.0	4.15	309.44	1.000
4	20.0	4.15	308.05	1.000
5	20.0	4.15	310.35	1.000
6	25.0	4.35	305.26	1.000
7	30.0	4.55	411.54	1.000
8	35.0	4.50	574.24	0.998
9	40.0	4.40	599.46	0.998
10	10.0	2.20	1093.37	1.000
11	15.0	4.55	306.12	1.000
12	15.0	4.55	297.47	1.000
13	15.0	4.55	297.90	1.000
14	15.0	4.55	298.43	1.000
15	15.0	4.55	301.28	1.000
16	15.0	4.55	302.05	1.000



form

• Time: 04:16:09PM

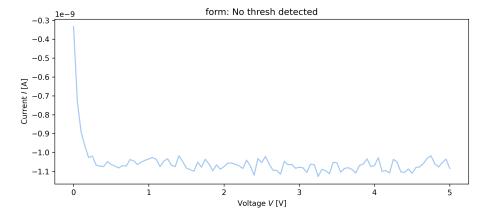
• **Icc:** 10.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.069 V/s*

• Cycle: 1

Error: Set failed

Failure to form. Bad probe to pad contact. A: Copper, B: Platinum.



form

• Time: 04:16:59PM

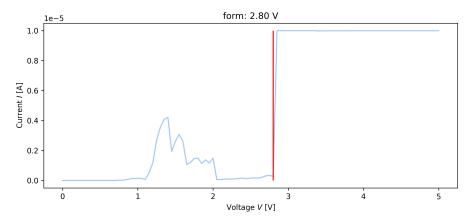
• **Icc:** 10.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.072 V/s*

• **Cycle:** 1

• Set Voltage: 2.80 V

Success, but strange curve in the beginning. A: Copper, B: Platinum.



form

Time: 04:17PMIcc: 10.0uA

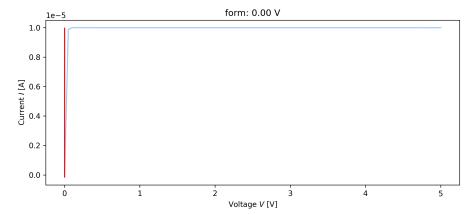
Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s

• True Ramp Rate: 1.842 V/s*

• **Cycle:** 1

Error: Set failed

Intention was just to observe, form success confirmed. A: Copper, B: Platinum.



• **Time:** 04:19PM

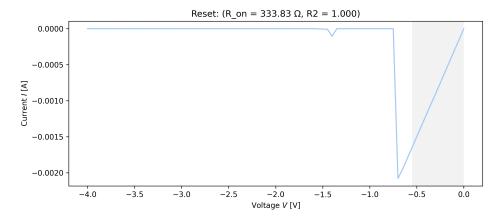
• **Icc:** 5.0mA

Voltage Range: 0V → -4V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.342 V/s*

• Cycle: 1

Resistance: 333.83 Ω
 Linear Fit R2: 1.000

Success. AV column missing, copied from run 2202281620. This run was a near perfect reset. A: Copper, B: Platinum.



• **Time:** 04:20PM

• **Icc:** 5.0mA

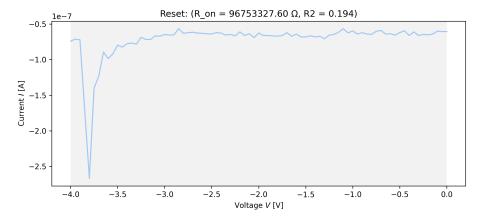
Voltage Range: 0V → -4V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.068 V/s*

• **Cycle:** 2

• Resistance: 96753327.60 Ω

Linear Fit R2: 0.194

Retry and observation from run 2202281619 due to missing AV column. A: Copper, B: Platinum.



Time: 04:26PMIcc: 20.0uA

• Voltage Range: $0V \rightarrow 5V$

Target Ramp Rate: 1V/s

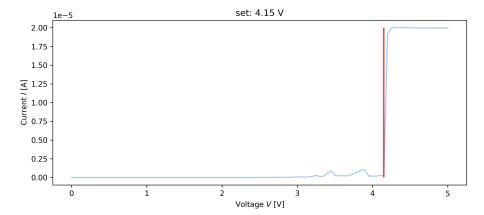
True Ramp Rate: 4 000 V/

True Ramp Rate: 1.069 V/s*

• **Cycle:** 3

• Set Voltage: 4.15 V

Successfull set. A: Copper, B: Platinum.



• Time: 04:29PM

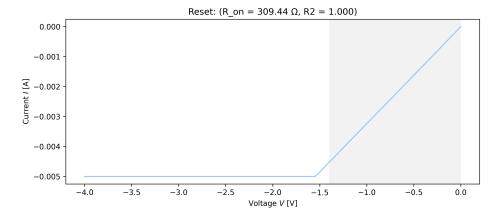
• **Icc:** 5.0mA

Voltage Range: 0V → -4V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.609 V/s*

• **Cycle:** 3

Resistance: 309.44 Ω
 Linear Fit R2: 1.000

Failure to reset. A: Copper, B: Platinum.



• **Time:** 04:30PM

• **Icc:** 5.0mA

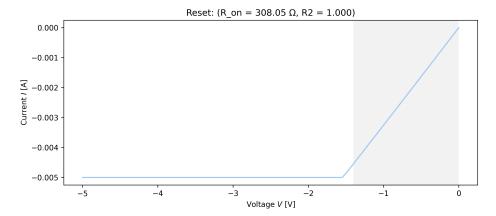
Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s

• True Ramp Rate: -1.609 V/s*

• Cycle: 4

Resistance: 308.05 Ω
 Linear Fit R2: 1.000

Reset failure. A: Copper, B: Platinum



• **Time:** 04:31PM

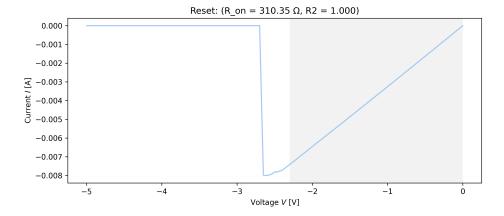
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.608 V/s*

• **Cycle:** 5

Resistance: 310.35 Ω
 Linear Fit R2: 1.000

Reset success. A: Copper, B: Platinum.



• **Time:** 04:34PM

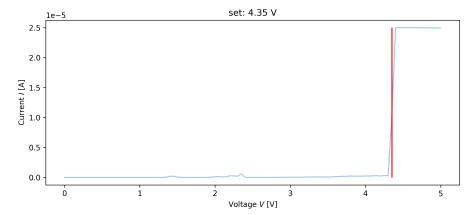
• **Icc:** 25.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.069 V/s*

• **Cycle:** 6

• Set Voltage: 4.35 V

Successful set. A: Copper, B: Platinum.



• **Time:** 04:36PM

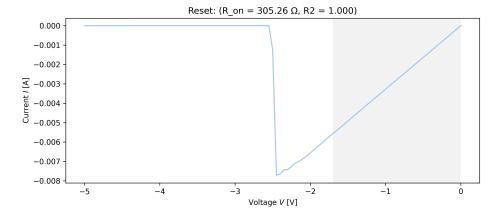
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.609 V/s*

• **Cycle**: 6

Resistance: 305.26 Ω
 Linear Fit R2: 1.000

Successful reset. A: Copper, B: Platinum.



Time: 04:37PMIcc: 30.0uA

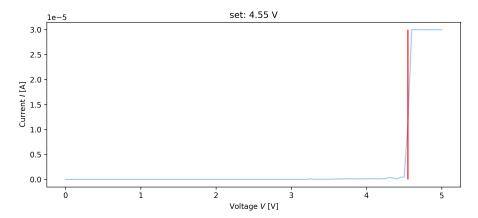
Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s

• True Ramp Rate: 1.069 V/s*

• Cycle: 7

• Set Voltage: 4.55 V

Set success. A: Copper, B: Platinum.



• **Time:** 04:38PM

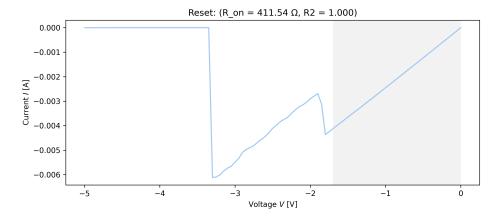
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.514 V/s*

• Cycle: 7

Resistance: 411.54 Ω
 Linear Fit R2: 1.000

Reset success. But not smooth. A: Copper, B: Platinum.



Time: 04:40PMIcc: 35.0uA

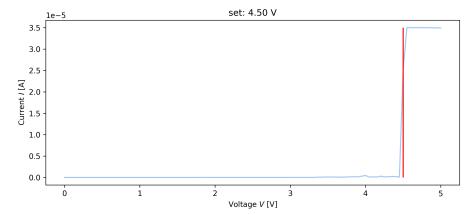
• Voltage Range: $0V \rightarrow 5V$

Target Ramp Rate: 1V/s
 True Ramp Rate: 1.068 V/s*

• **Cycle:** 8

• Set Voltage: 4.50 V

Set success. A: Copper, B: platinum



• **Time:** 04:41PM

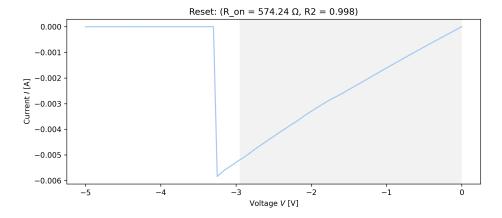
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.352 V/s*

• **Cycle:** 8

Resistance: 574.24 Ω
 Linear Fit R2: 0.998

Successful reset, very smooth. A: Copper, B: Platinum.



• Time: 04:45:00PM

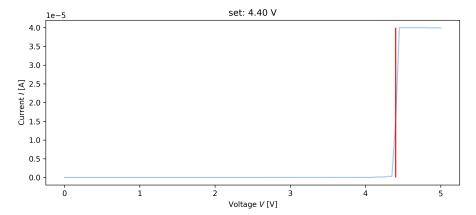
• **Icc:** 40.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.069 V/s*

• **Cycle:** 9

• Set Voltage: 4.40 V

Set sucess. A: Copper, B: Platinum.



• Time: 04:45:54PM

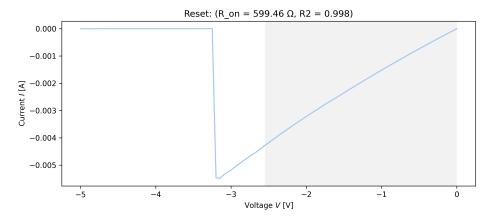
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.351 V/s*

• **Cycle:** 9

Resistance: 599.46 Ω
 Linear Fit R2: 0.998

Successful reset. A: Copper, B: Platinum



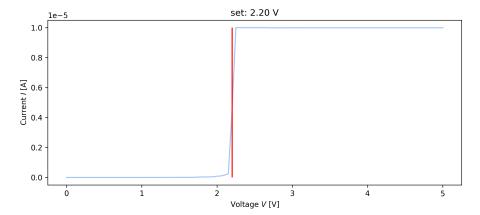
Time: 04:47PMIcc: 10.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.069 V/s*

• **Cycle:** 10

• Set Voltage: 2.20 V

Successful set. A: Copper, B: Platinum.



• **Time:** 04:48PM

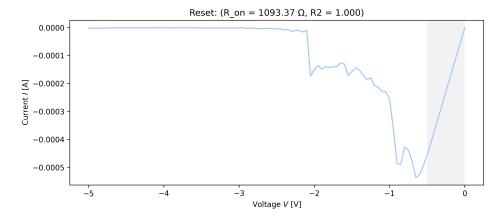
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.091 V/s*

• **Cycle:** 10

Resistance: 1093.37 Ω
 Linear Fit R2: 1.000

Successful reset, but very janky. A: Copper, B: Platinum.



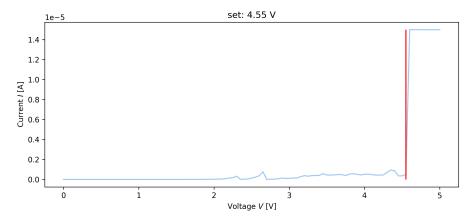
Time: 04:51PMIcc: 15.0uA

Voltage Range: 0V → 5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: 1.069 V/s*

• Cycle: 11

• Set Voltage: 4.55 V

Successful set. A: Copper, B: Platinum.



Time: 04:54PM

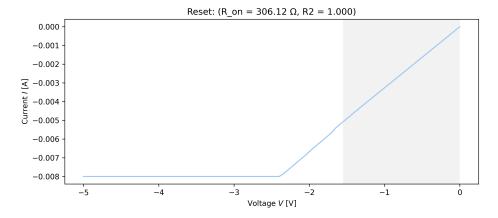
Icc: 8.0mA

Voltage Range: $0V \rightarrow -5V$ Target Ramp Rate: 1V/s True Ramp Rate: -1.609 V/s*

Cycle: 11

Resistance: 306.12Ω Linear Fit R2: 1.000

Reset failed. A: Copper, B: Platinum



• Time: 04:55:04PM

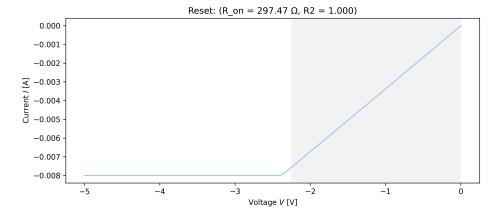
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.609 V/s*

• **Cycle:** 12

Resistance: 297.47 Ω
 Linear Fit R2: 1.000

Reset failed. A: Copper, B: Platinum.



• Time: 04:55:32PM

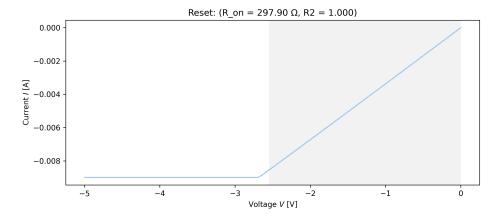
• Icc: 9.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.609 V/s*

• **Cycle:** 13

Resistance: 297.90 Ω
 Linear Fit R2: 1.000

Reset failed. Something wrong, cell is possibly burnt out (i.e. too strong of a filament. A: Copper, B: Platinum.



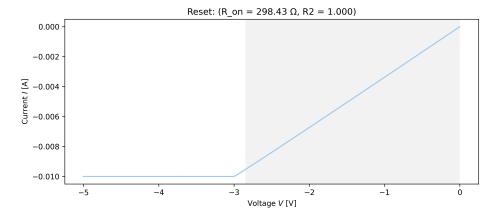
Time: 04:57PMIcc: 10.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.610 V/s*

• Cycle: 14

Resistance: 298.43 Ω
 Linear Fit R2: 1.000

Reset failed. A: Copper, B: Platinum



• Time: 04:59:04PM

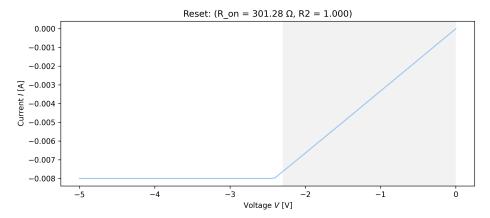
• **Icc:** 8.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.610 V/s*

• **Cycle:** 15

Resistance: 301.28 Ω
 Linear Fit R2: 1.000

Failed reset again. A: Copper, B: Platinum.



• Time: 04:59:43PM

• **lcc:** 15.0mA

Voltage Range: 0V → -5V
 Target Ramp Rate: 1V/s
 True Ramp Rate: -1.087 V/s*

• **Cycle:** 16

Resistance: 302.05 Ω
 Linear Fit R2: 1.000

Reset fail. Cell damage confirmed. A: Copper, B: Platinum.

