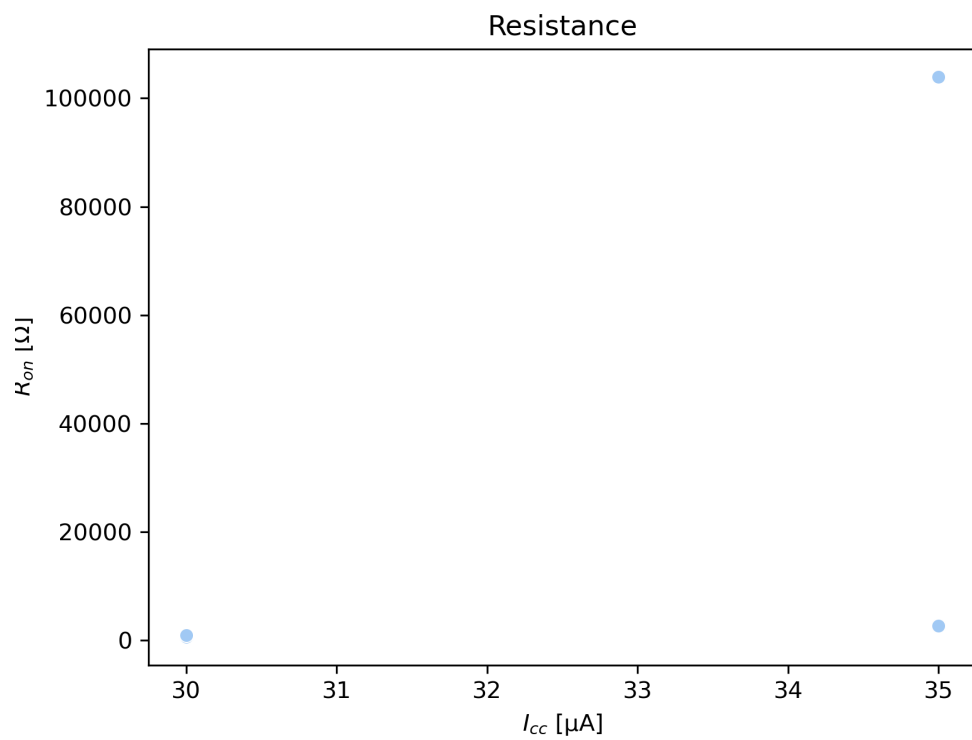# (wafer2,0,6,-1,-1,0,4) Characteristics

_____

- **Cell Size:** 10um
- **Times Accessed:** 42
- **Last Measurement:** 2022/April/01 at 12:41:33PM
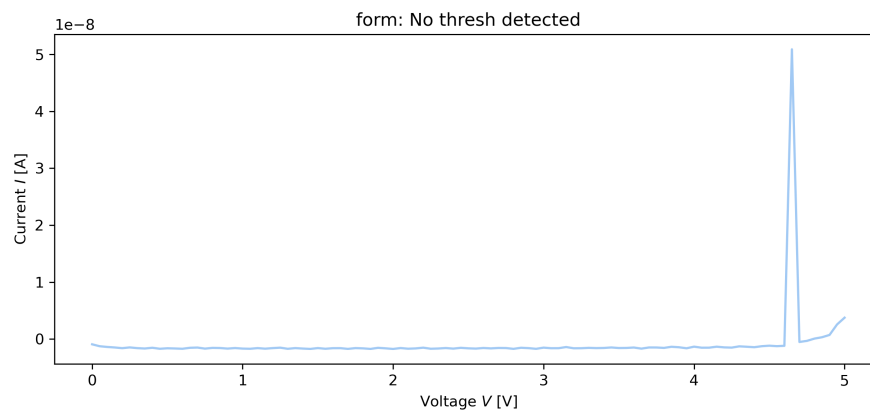
Summary

Cycle #	Set Icc (µA)	Set Voltage (V)	R_on (Ω)	R2
1	30.0	4.95	637.42	1.000
2	30.0	2.65	676.31	1.000
3	30.0	2.70	792.79	1.000
4	30.0	3.00	692.48	1.000
5	30.0	4.35	929.06	1.000
6	35.0	4.50	2451379.75	0.765
7	35.0	4.55	2709.65	1.000
8	35.0	1.10	103906.56	0.985
9	35.0	3.45	18268.06	0.964
10	45.0	0.45	1437178.17	0.819
11	45.0	2.95	318657.37	0.840
12	1.0	1.85	679709.59	0.547

Resistance

form

_____

- **Time:** 05:10:15PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
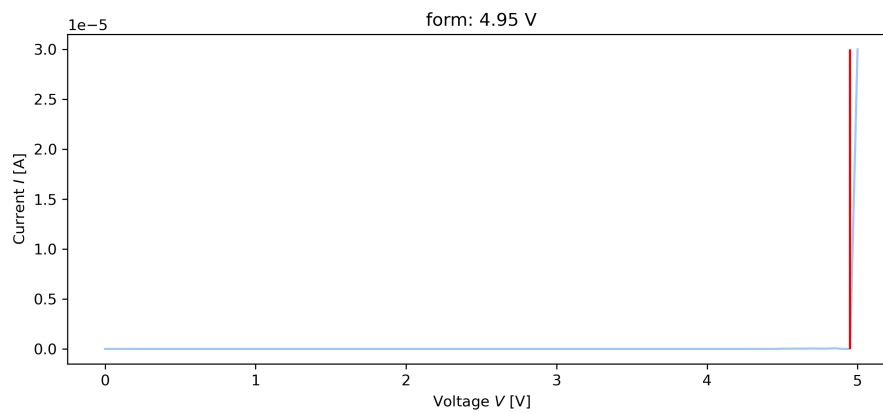- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 1
- **Error:** Set failed

Not conducting

form

_____

- **Time:** 05:10:39PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
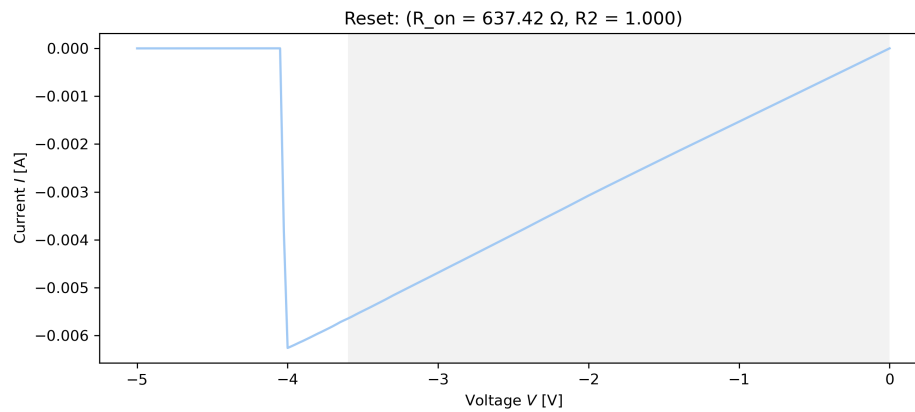- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 1
- **Set Voltage:** 4.95 V

Formed, but at the end ~5V

reset

_____

- **Time:** 05:11:17PM
- **Icc:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.703 V/s*
- **Cycle:** 1
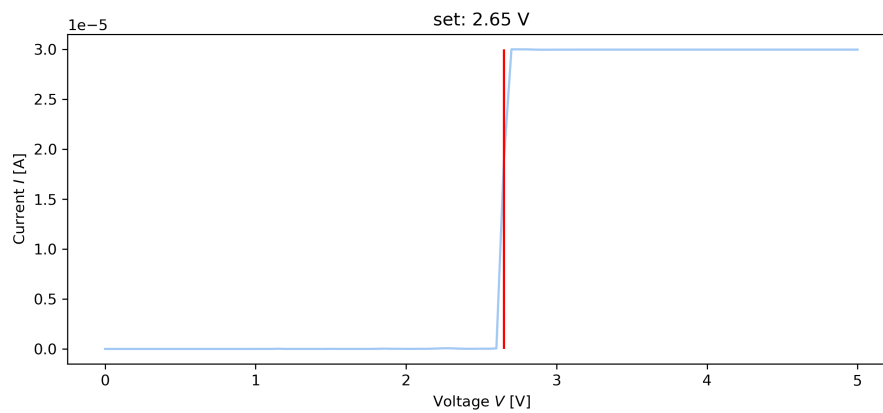- **Resistance:** 637.42 Ω
- **Linear Fit R2:** 1.000

Did reset

Reset: (R_on = 637.42 Ω, R2 = 1.000)

set

_____

- **Time:** 05:11:35PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 2
- **Set Voltage:** 2.65 V

successfully Set
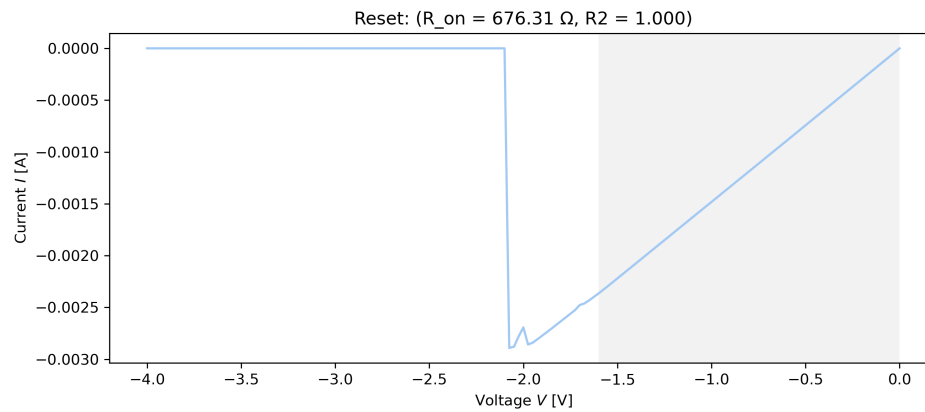
reset

_____

- **Time:** 05:12:18PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V $\rightarrow$ -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.694 V/s*
- **Cycle:** 2
- **Resistance:** 676.31 Ω
- **Linear Fit R2:** 1.000

Did reset, slope maintained

Reset: (R_on = 676.31 Ω, R2 = 1.000)

set

_____

- **Time:** 05:12:47PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 3
- **Set Voltage:** 2.70 V

Set, 2.75V

reset

_____

- **Time:** 05:13:39PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.659 V/s*
- **Cycle:** 3
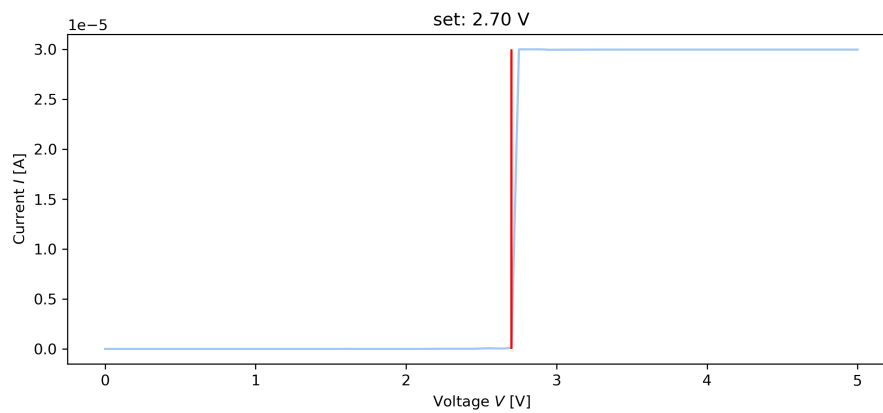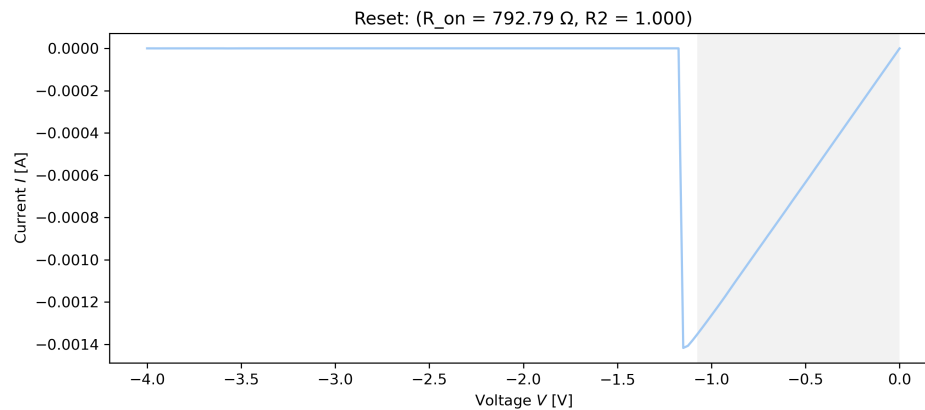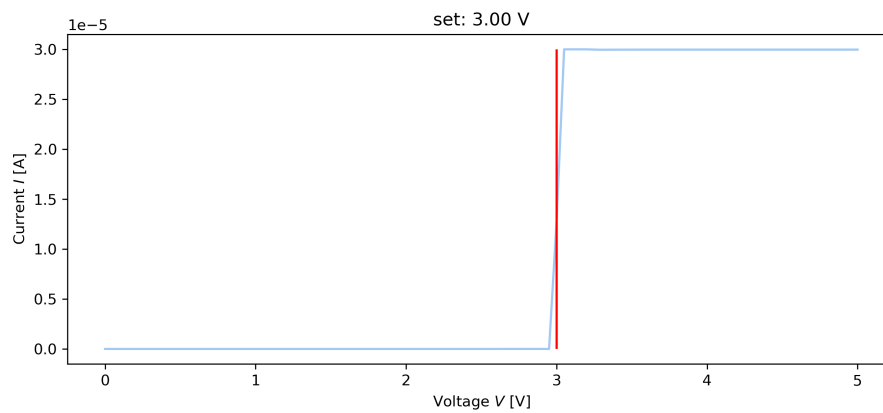- **Resistance:** 792.79 Ω
- **Linear Fit R2:** 1.000

Did reset, different slope from previous

Reset: (R_on = 792.79 Ω, R2 = 1.000)

set

_____

- **Time:** 05:14:21PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 4
- **Set Voltage:** 3.00 V

Set, 3.05V
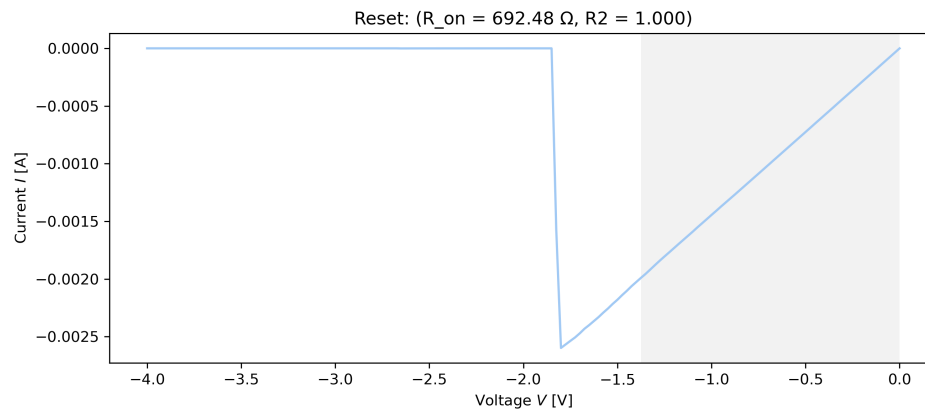
reset

_____

- **Time:** 05:15:02PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.684 V/s*
- **Cycle:** 4
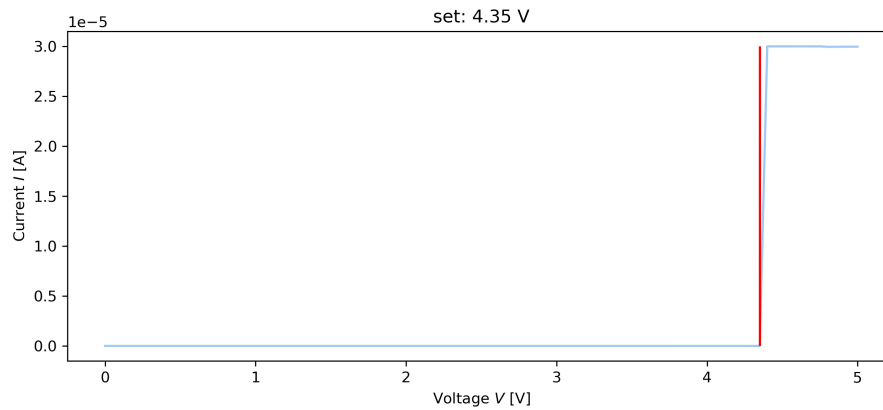- **Resistance:** 692.48 Ω
- **Linear Fit R2:** 1.000

Did reset, slope maintained from previous

Reset: (R_on = 692.48 Ω, R2 = 1.000)

set

_____

- **Time:** 11:43:59AM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 5
- **Set Voltage:** 4.35 V

Did set, 4.4V
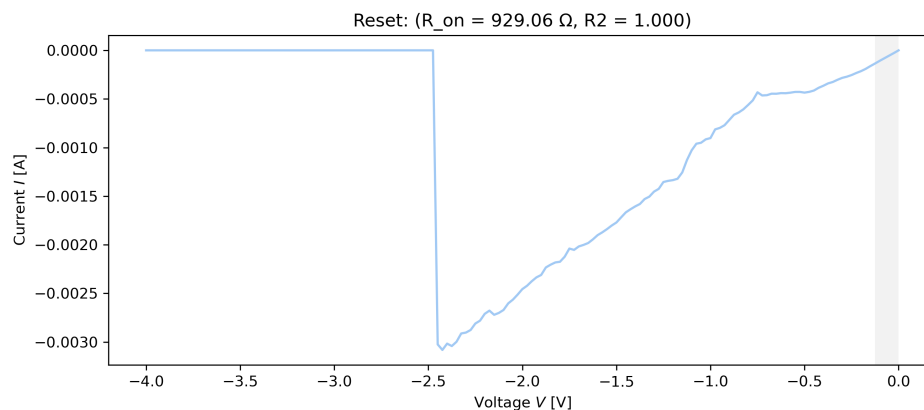
reset

_____

- **Time:** 11:45:15AM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.566 V/s*
- **Cycle:** 5
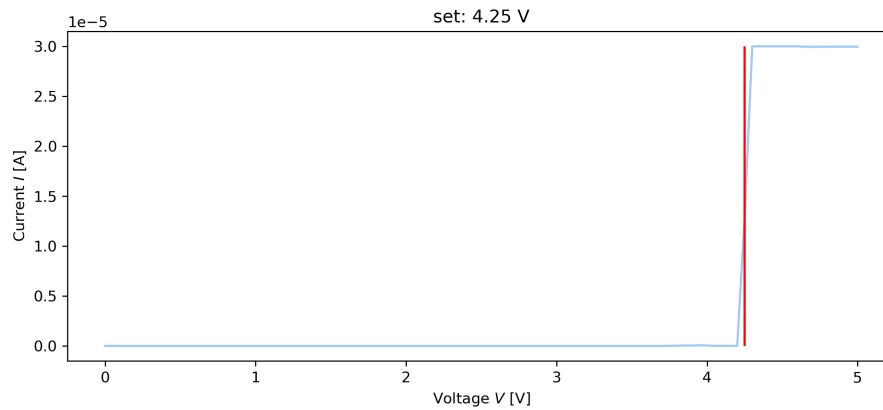- **Resistance:** 929.06 Ω
- **Linear Fit R2:** 1.000

Resets

Reset: (R_on = 929.06 Ω, R2 = 1.000)

set

_____

- **Time:** 11:47:55AM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 6
- **Set Voltage:** 4.25 V

Does set, 4.3V
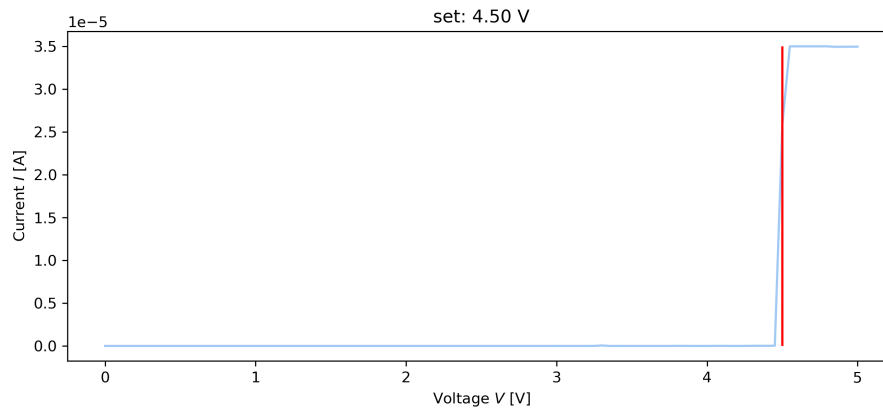
set

_____

- **Time:** 12:22:13PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.068 V/s*
- **Cycle:** 6
- **Set Voltage:** 4.50 V

set at 4.55V
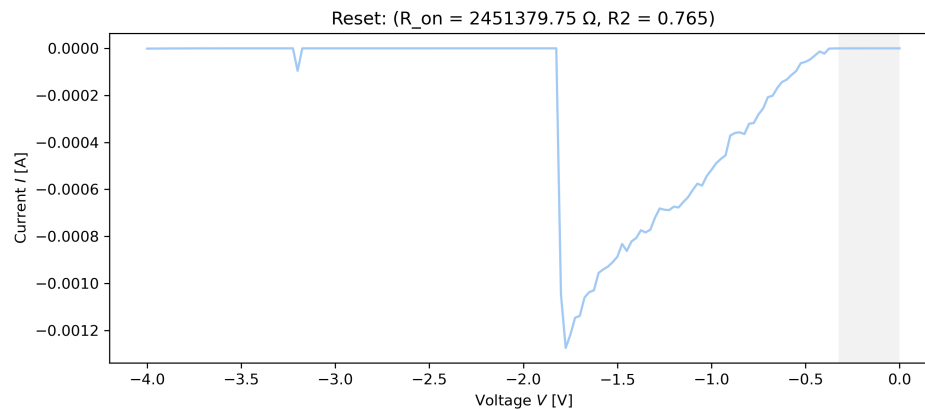
reset

_____

- **Time:** 12:23:01PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.553 V/s*
- **Cycle:** 6
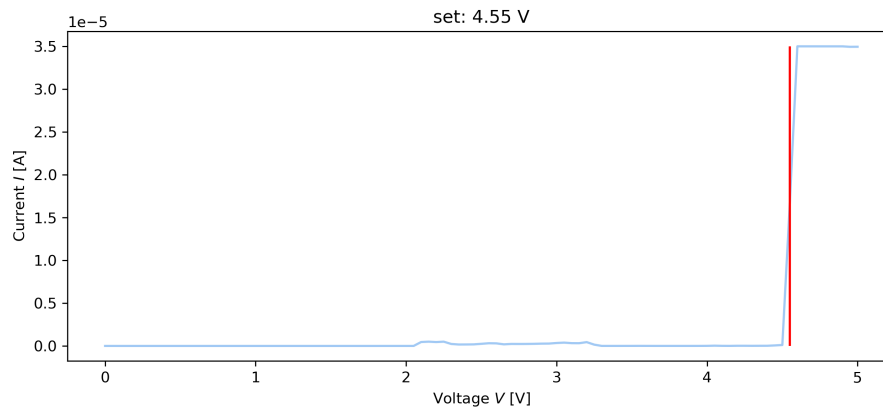- **Resistance:** 2451379.75 Ω
- **Linear Fit R2:** 0.765

Kind weird Reset

Reset: (R_on = 2451379.75 Ω, R2 = 0.765)

set

_____

- **Time:** 12:23:23PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 7
- **Set Voltage:** 4.55 V

set at 4.6V
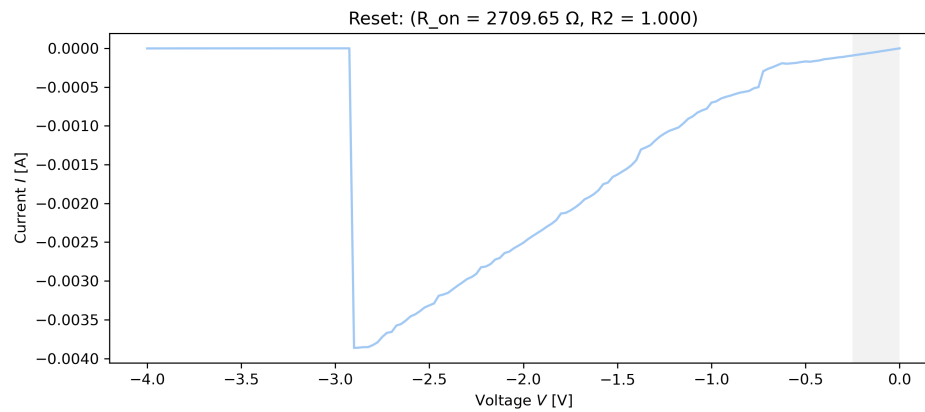
reset

_____

- **Time:** 12:24:04PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.558 V/s*
- **Cycle:** 7
- **Resistance:** 2709.65 Ω
- **Linear Fit R2:** 1.000

Reset

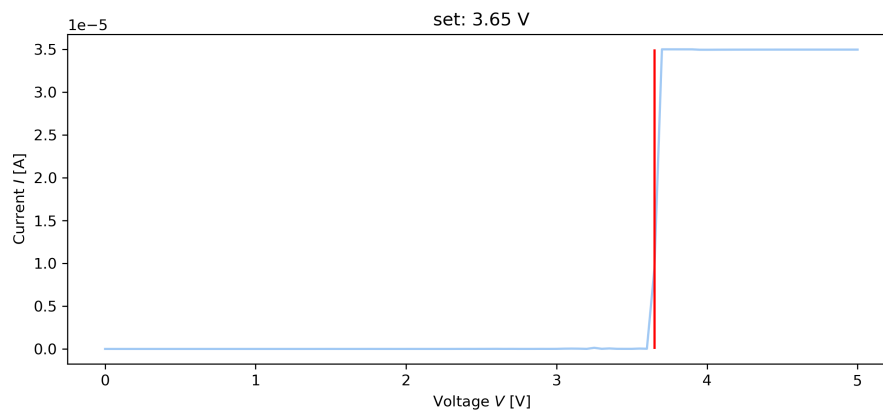Reset: (R_on = 2709.65 Ω, R2 = 1.000)

set

_____

- **Time:** 12:24:53PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 8
- **Set Voltage:** 3.65 V

set at 3.7V
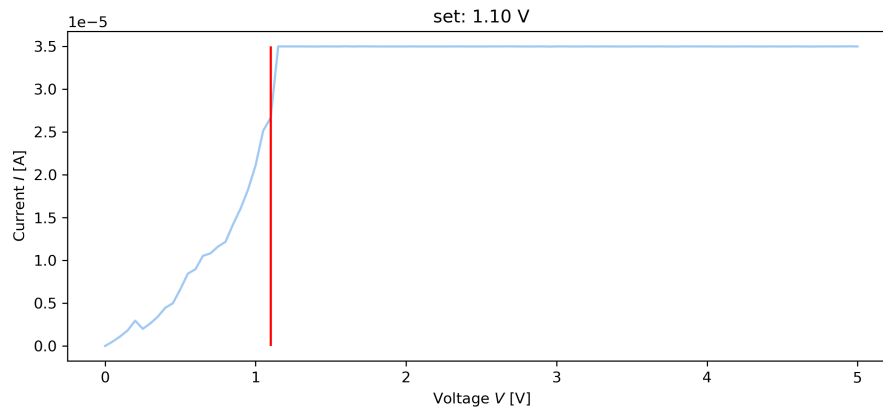
set

_____

- **Time:** 12:27:22PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
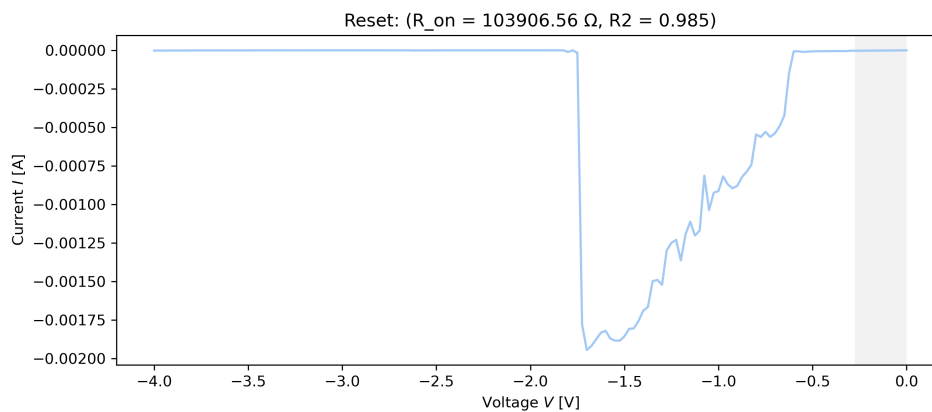- **True Ramp Rate:** 1.353 V/s*
- **Cycle:** 8
- **Set Voltage:** 1.10 V

weird set, 1.15V

reset

_____

- **Time:** 12:28:09PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.577 V/s*
- **Cycle:** 8
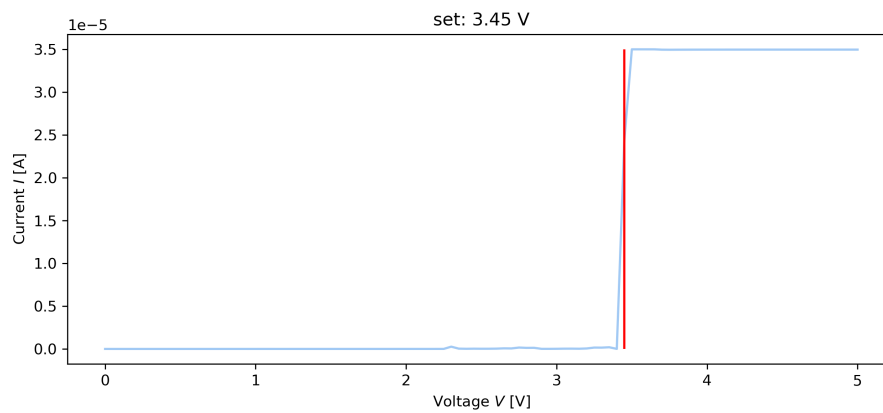- **Resistance:** 103906.56 Ω
- **Linear Fit R2:** 0.985

Reset, but it's weird

Reset: (R_on = 103906.56 Ω, R2 = 0.985)

set

_____

- **Time:** 12:28:33PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
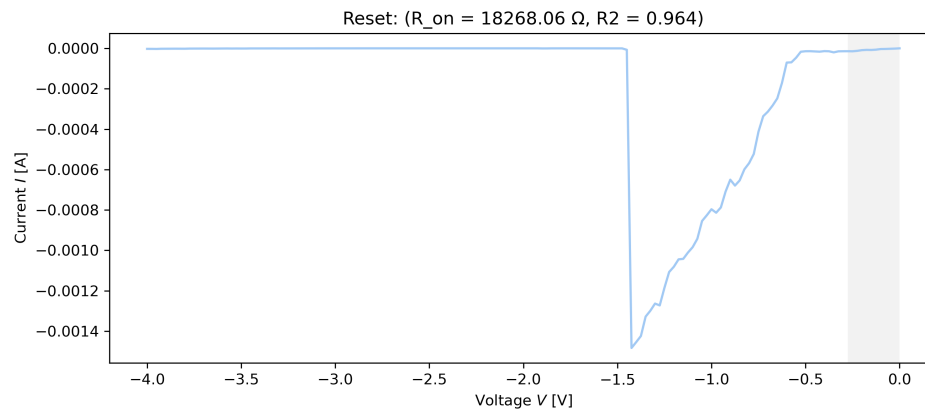- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 9
- **Set Voltage:** 3.45 V

Good set, 3.5V

set: 3.45 V

reset

- **Time:** 12:29:41PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.553 V/s*
- **Cycle:** 9
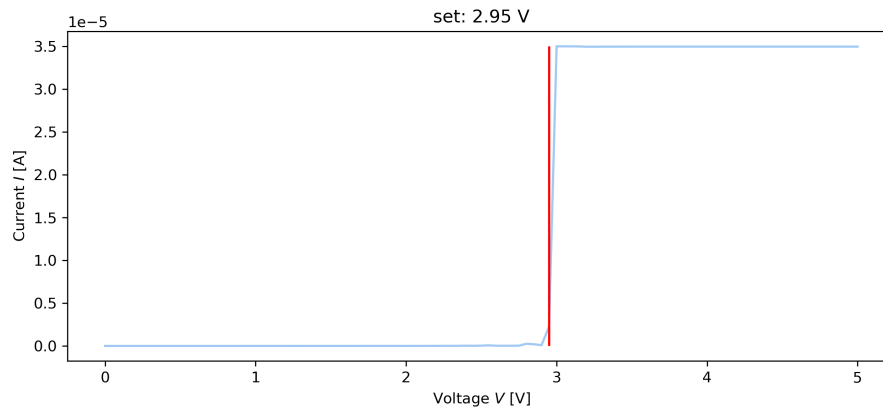- **Resistance:** 18268.06 Ω
- **Linear Fit R2:** 0.964

Reset, starts with a slope of 0

Reset: (R_on = 18268.06 Ω, R2 = 0.964)

set

- **Time:** 12:30:42PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
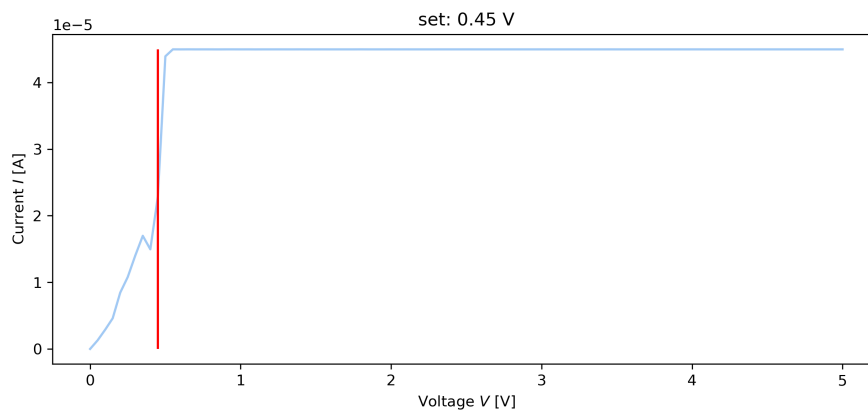- **Cycle:** 10
- **Set Voltage:** 2.95 V

Set at 3V

set

_____

- **Time:** 12:33:08PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
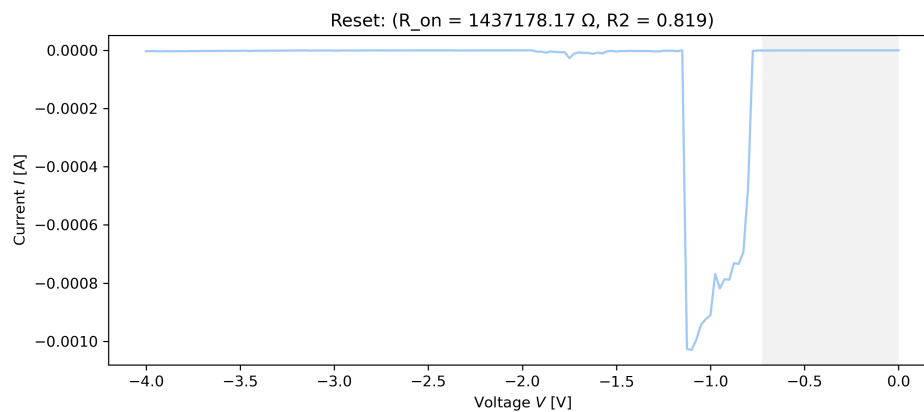- **True Ramp Rate:** 1.608 V/s*
- **Cycle:** 10
- **Set Voltage:** 0.45 V

Set really quickly

reset

_____

- **Time:** 12:33:36PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.556 V/s*
- **Cycle:** 10
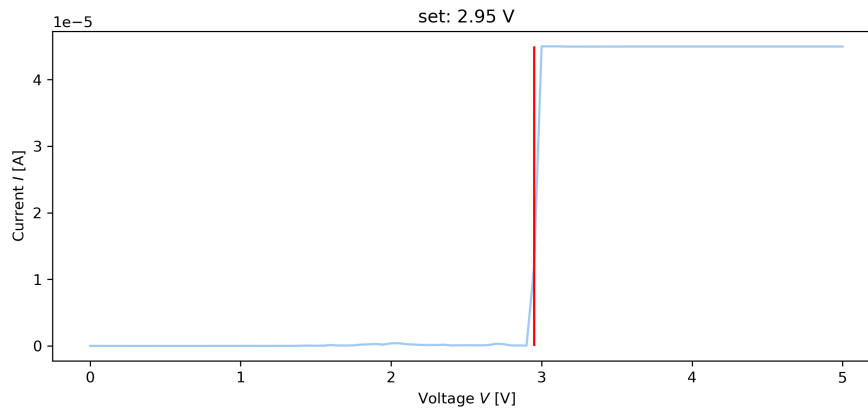- **Resistance:** 1437178.17 Ω
- **Linear Fit R2:** 0.819

Reset

Reset: (R_on = 1437178.17 Ω, R2 = 0.819)

set

_____

- **Time:** 12:33:52PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 11
- **Set Voltage:** 2.95 V

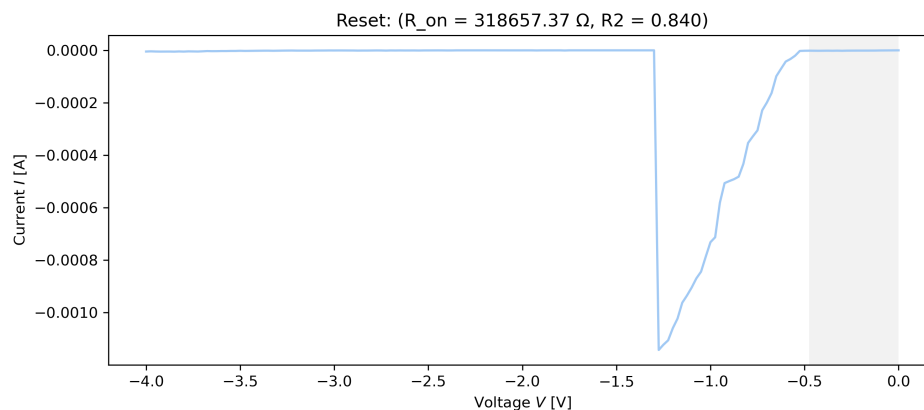Set at 3V

reset

_____

- **Time:** 12:35:37PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.552 V/s*
- **Cycle:** 11
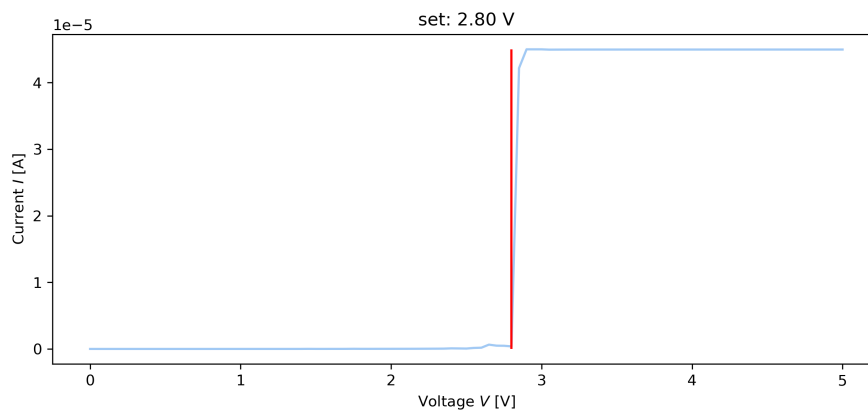- **Resistance:** 318657.37 Ω
- **Linear Fit R2:** 0.840

Reset

Reset: (R_on = 318657.37 Ω, R2 = 0.840)

set

_____

- **Time:** 12:35:59PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 12
- **Set Voltage:** 2.80 V

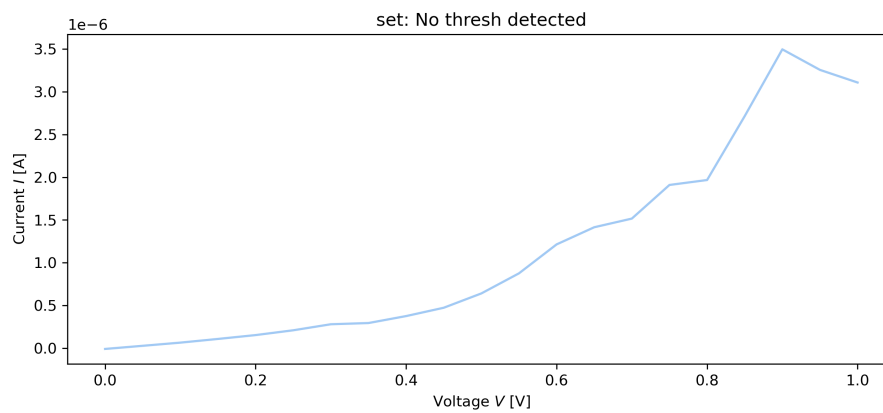Set at 2.9V

set

- **Time:** 12:38:13PM
- **Icc:** 1.0mA
- **Voltage Range:** 0V → 1V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 12
- **Error:** Set failed

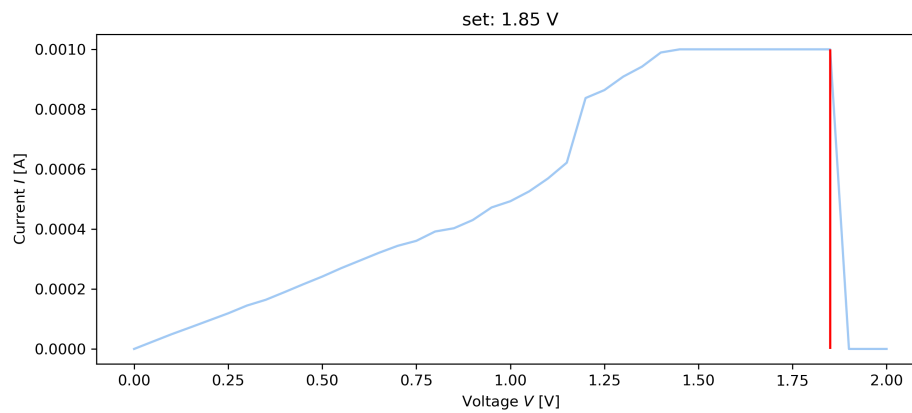Was a test of the already set filament to see if it increased linearly

set

_____

- **Time:** 12:39:53PM
- **Icc:** 1.0mA
- **Voltage Range:** 0V → 2V
- **Target Ramp Rate:** 1V/s
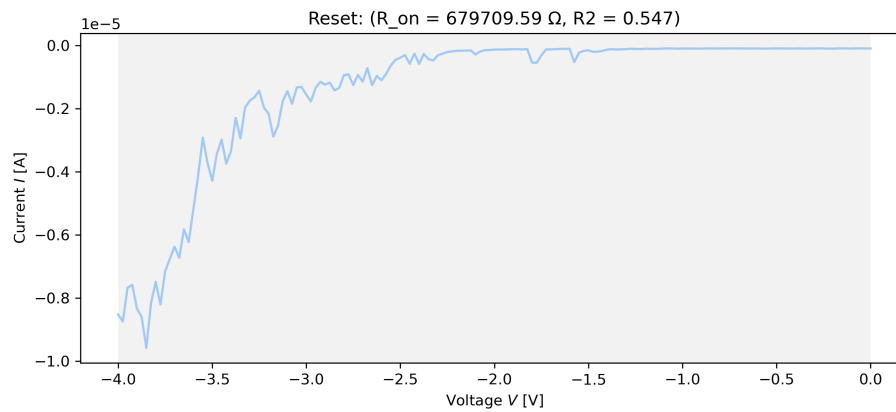- **True Ramp Rate:** 1.608 V/s*
- **Cycle:** 12
- **Set Voltage:** 1.85 V

Same test as previous run but going to 2 V

set: 1.85 V

reset

_____

- **Time:** 12:40:36PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.547 V/s*
- **Cycle:** 12
- **Resistance:** 679709.59 Ω
- **Linear Fit R2:** 0.547

Already in reset

set

_____

- **Time:** 12:41:33PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.608 V/s*
- **Cycle:** 13
- **Set Voltage:** 3.00 V

Set at 3.05V