

# (wafer2,0,7,-1,-1,1,1) Characteristics

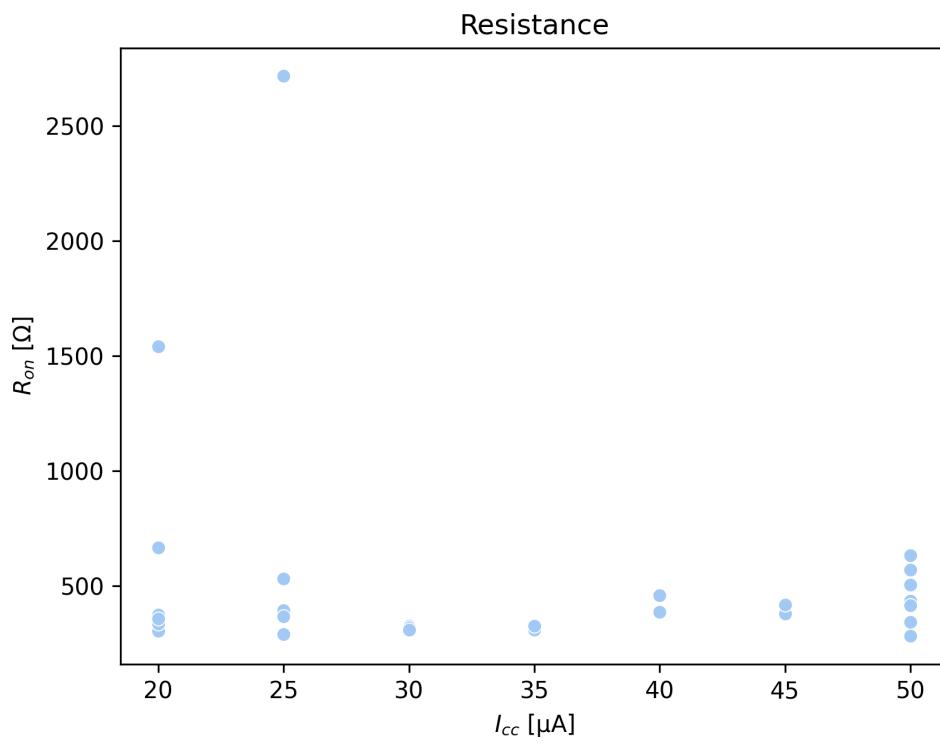
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- **Cell Size:** 10um
- **Times Accessed:** 56
- **Last Measurement:** 2022/March/28 at 05:01:39PM

## *Summary*

Cycle #	Set Icc (µA)	Set Voltage (V)	R_on (Ω)	R2
1	20.0	4.30	325.41	1.000
2	20.0	4.40	303.39	1.000
3	20.0	4.40	378.32	1.000
4	20.0	4.40	363.96	1.000
5	20.0	4.40	1541.39	1.000
6	20.0	4.15	667.53	1.000
7	20.0	3.75	374.79	1.000
8	20.0	3.75	305.19	1.000
9	20.0	2.80	335.08	1.000
10	20.0	2.80	356.71	1.000
11	25.0	3.20	392.65	1.000
12	25.0	2.25	364347298.21	0.380
13	25.0	4.65	2717.35	1.000
14	25.0	4.65	532.46	1.000
15	25.0	4.65	290.51	1.000
16	25.0	2.65	367.04	1.000
17	30.0	3.40	326.92	1.000
18	30.0	3.85	317.91	1.000
19	30.0	3.85	309.11	1.000
20	35.0	3.95	309.70	1.000
21	35.0	3.60	327.05	1.000
22	40.0	2.00	458.09	1.000
23	40.0	3.20	387.28	1.000
24	45.0	3.35	378.51	1.000
25	45.0	2.90	418.02	1.000
26	50.0	2.65	632.76	1.000
27	50.0	2.50	505.26	1.000

28	50.0	2.75	435.02	1.000
29	50.0	2.75	569.88	1.000
30	50.0	2.75	343.36	1.000
31	50.0	2.75	416.19	1.000
32	50.0	2.75	282.15	1.000

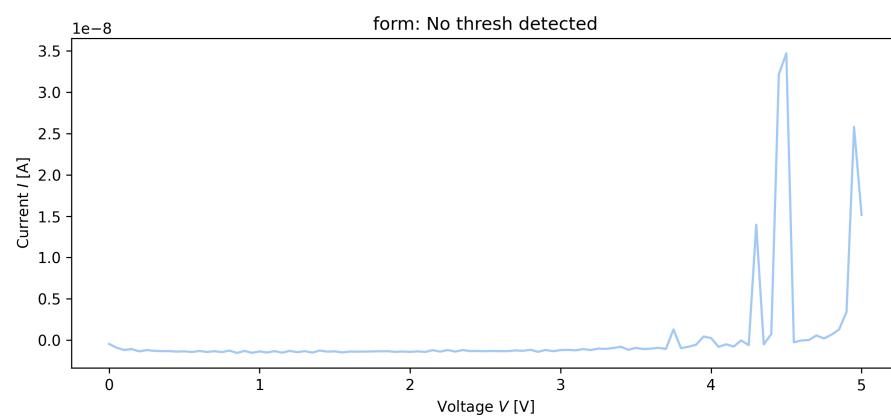


## form

---

- **Time:** 05:06:35PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 1
- **Error:** Set failed

Did not form

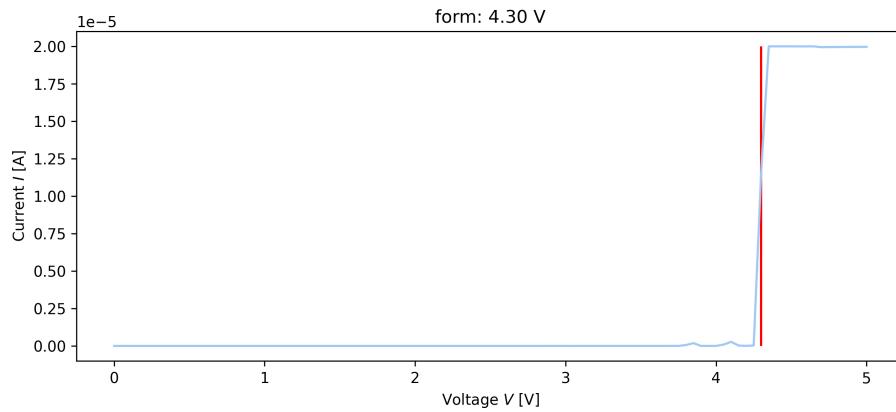


## form

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- **Time:** 05:07:05PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 1
- **Set Voltage:** 4.30 V

Formed at 4.35V

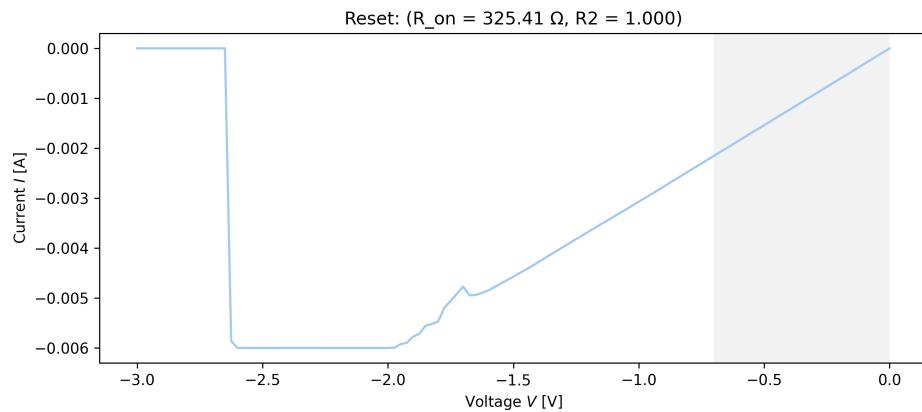


## reset

---

- **Time:** 05:07:45PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 1
- **Resistance:** 325.41 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, similar behavior to previous reset cell

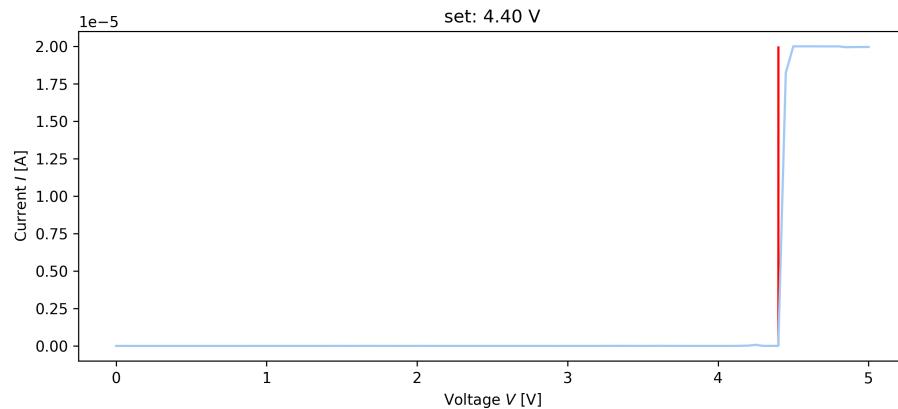


## set

---

- **Time:** 05:08:25PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 2
- **Set Voltage:** 4.40 V

Set at 4.45V

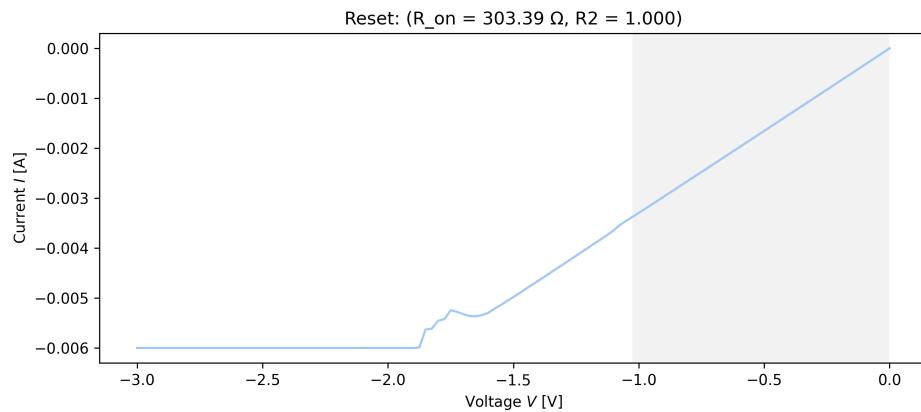


## reset

---

- **Time:** 05:08:50PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.826 V/s\*
- **Cycle:** 2
- **Resistance:** 303.39 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not reset

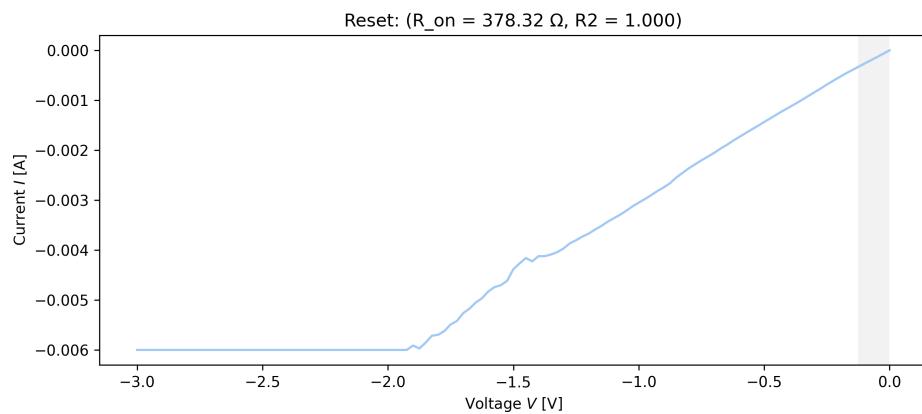


## reset

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- **Time:** 05:09:21PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.800 V/s\*
- **Cycle:** 3
- **Resistance:** 378.32 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

No Reset

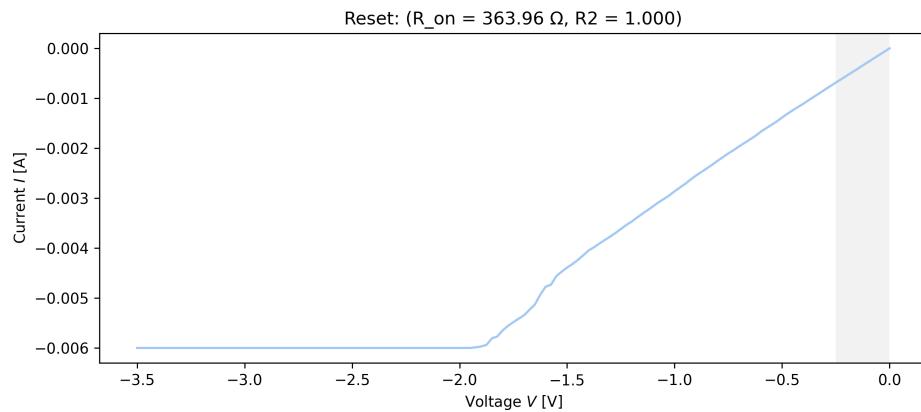


## reset

---

- **Time:** 05:09:52PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.800 V/s\*
- **Cycle:** 4
- **Resistance:** 363.96 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not reset again

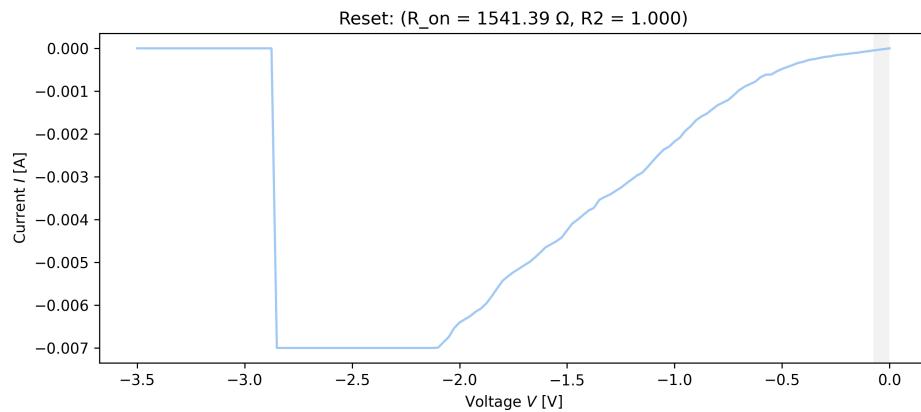


## reset

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- **Time:** 05:10:27PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.658 V/s\*
- **Cycle:** 5
- **Resistance:** 1541.39 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset

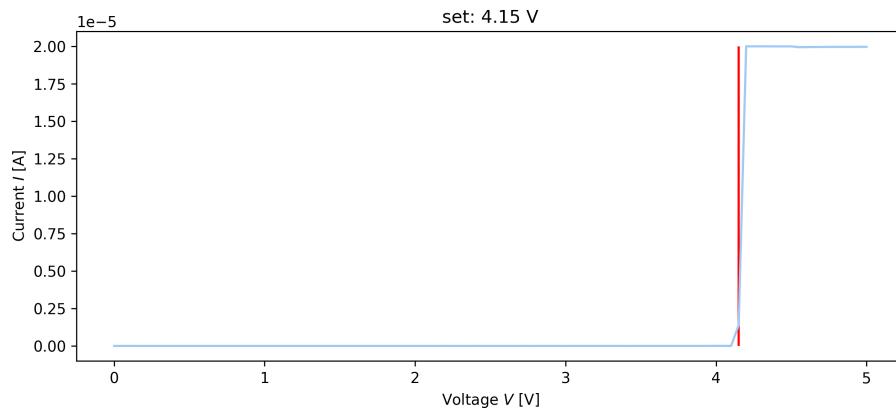


## set

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- **Time:** 05:10:54PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 6
- **Set Voltage:** 4.15 V

Set at 4.2V

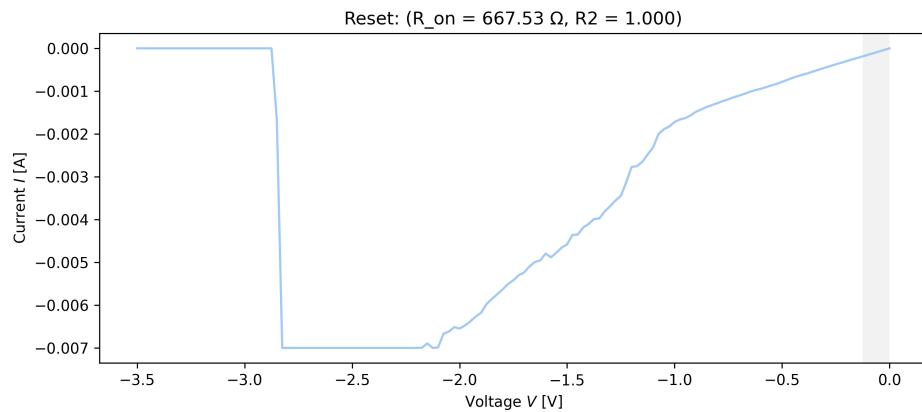


## reset

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- **Time:** 05:11:24PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.703 V/s\*
- **Cycle:** 6
- **Resistance:** 667.53 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, non constant slope

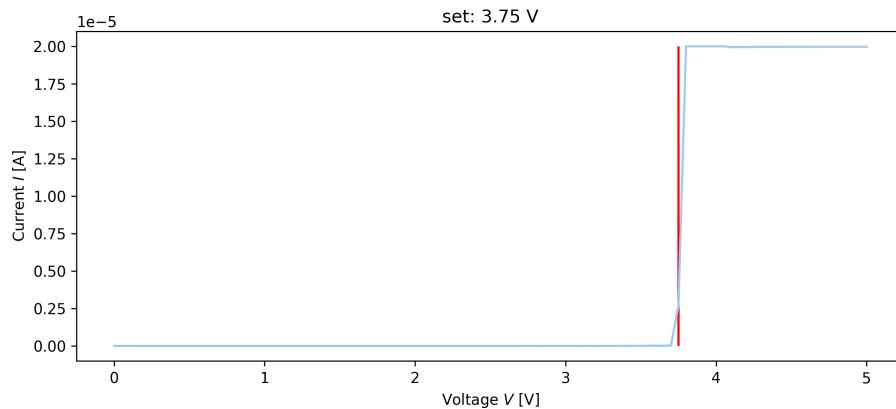


## set

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- **Time:** 05:12:01PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 7
- **Set Voltage:** 3.75 V

Set 3.8V

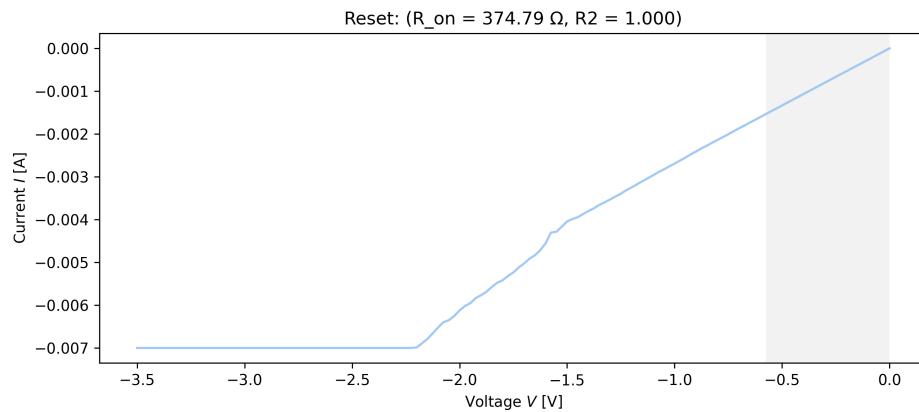


## reset

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- **Time:** 05:13:10PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.788 V/s\*
- **Cycle:** 7
- **Resistance:** 374.79 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not reset

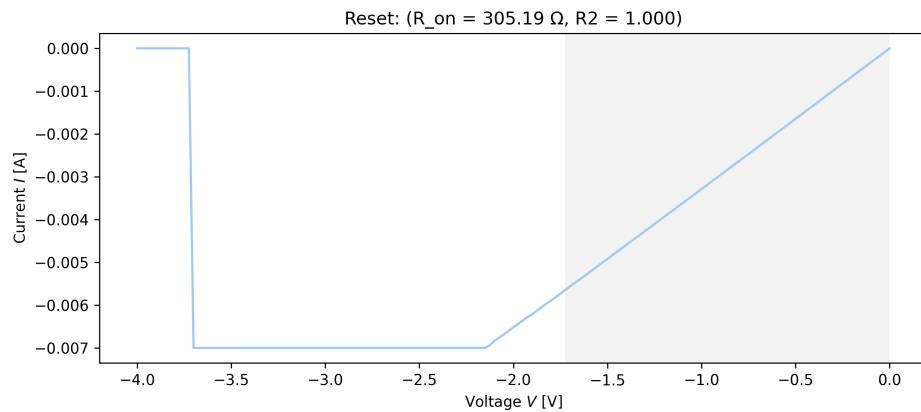


## reset

---

- **Time:** 05:13:39PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.826 V/s\*
- **Cycle:** 8
- **Resistance:** 305.19 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Decided to reset

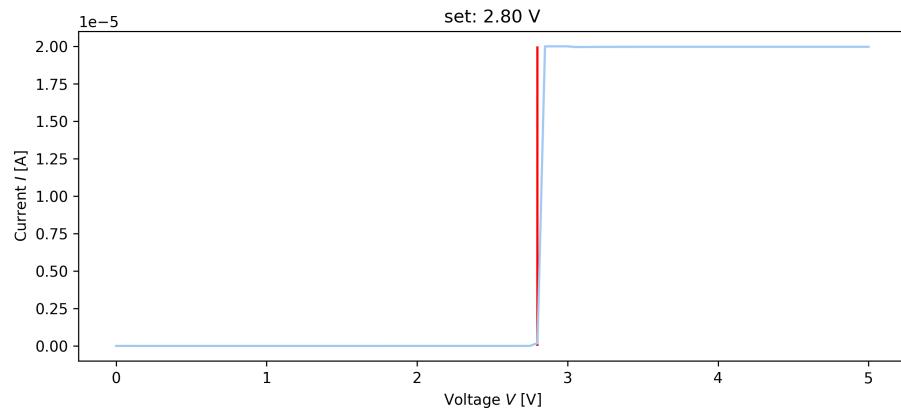


## set

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- **Time:** 05:14:15PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 9
- **Set Voltage:** 2.80 V

Set at 2.85V

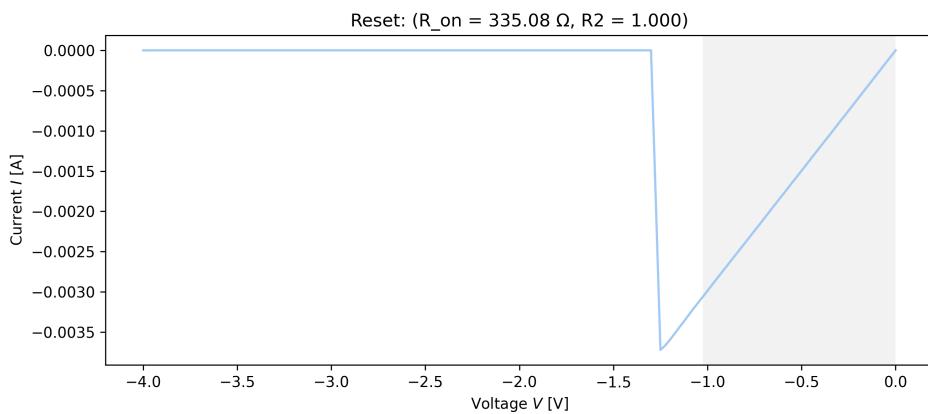


## reset

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- **Time:** 05:14:47PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 9
- **Resistance:** 335.08 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset nicely

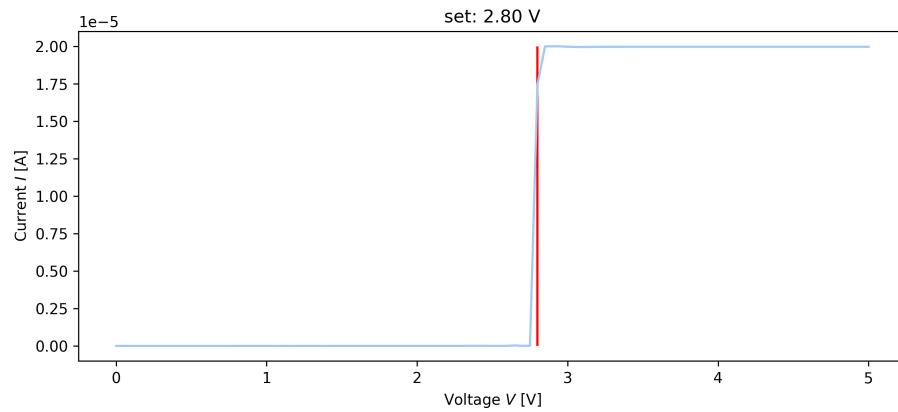


## set

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- **Time:** 05:16:14PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 10
- **Set Voltage:** 2.80 V

Set at 2.85V

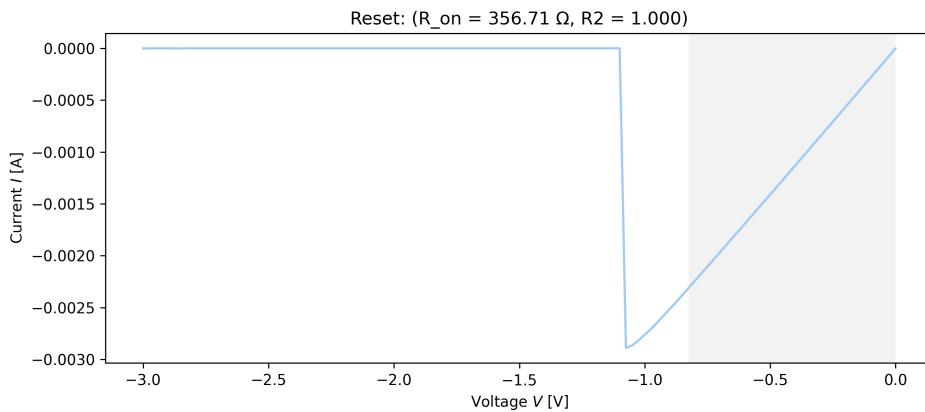


## reset

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- **Time:** 05:16:55PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.800 V/s\*
- **Cycle:** 10
- **Resistance:** 356.71 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset nicely again

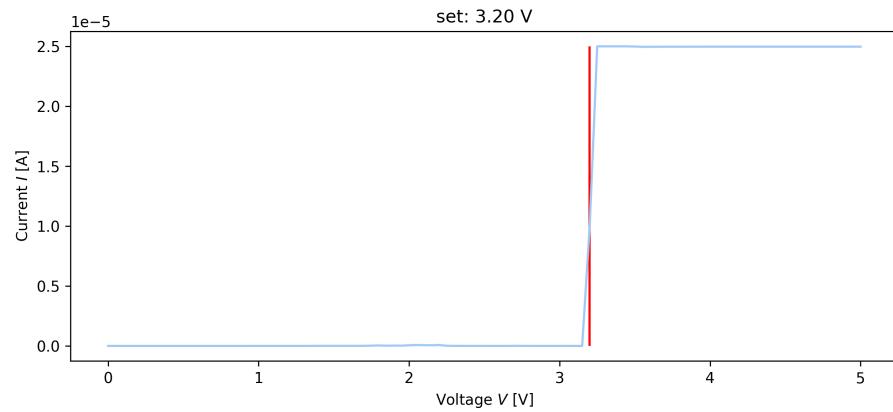


## set

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- **Time:** 05:18:40PM
- **Icc:** 25.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 11
- **Set Voltage:** 3.20 V

Set at 3.25V

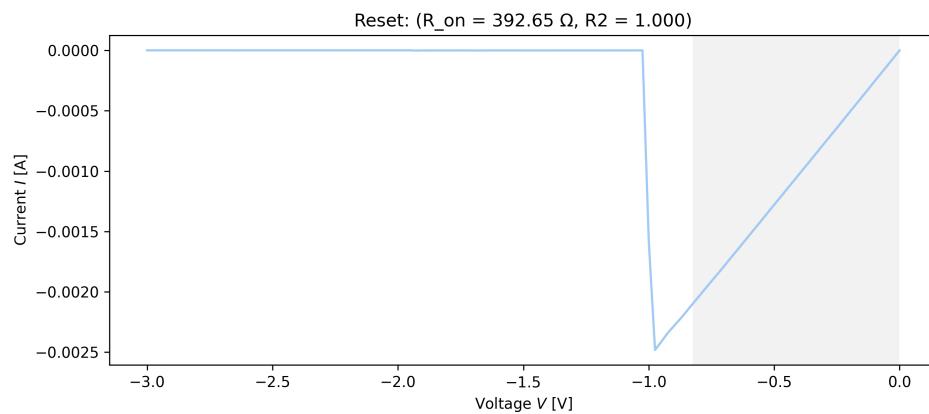


## reset

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- **Time:** 05:20:19PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.788 V/s\*
- **Cycle:** 11
- **Resistance:** 392.65 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, but slope was smaller instead of larger

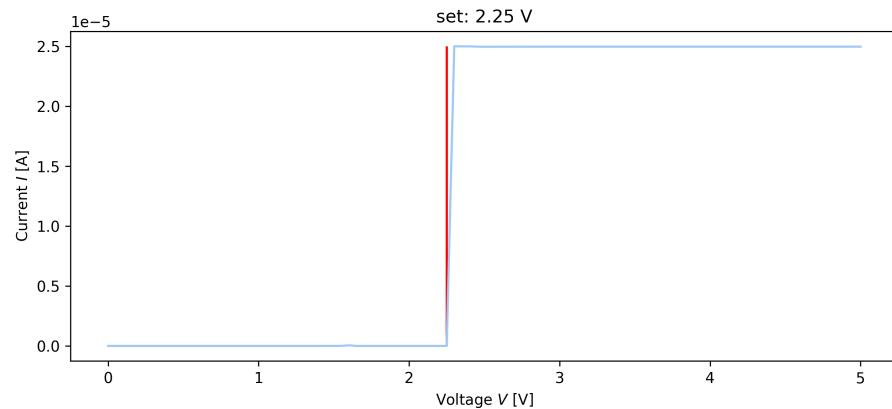


## set

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- **Time:** 05:20:59PM
- **Icc:** 25.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 12
- **Set Voltage:** 2.25 V

Set at 2.3V

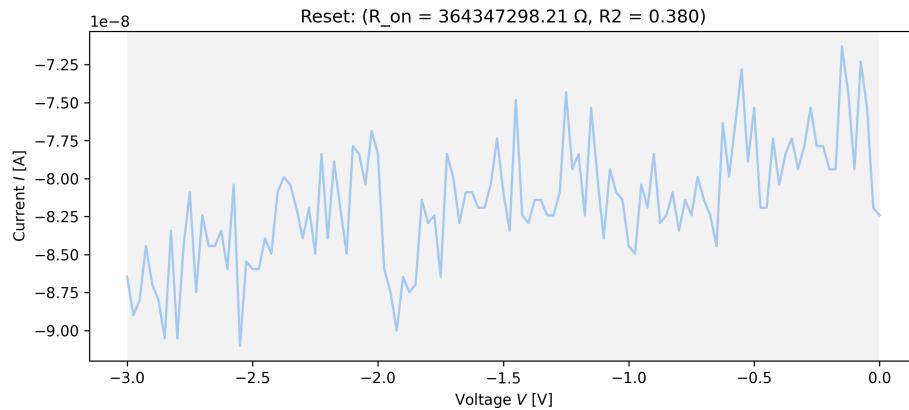


## reset

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- **Time:** 05:21:57PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.548 V/s\*
- **Cycle:** 12
- **Resistance:** 364347298.21 Ω
- **Linear Fit R<sub>2</sub>:** 0.380

No conduction as if it wasn't set

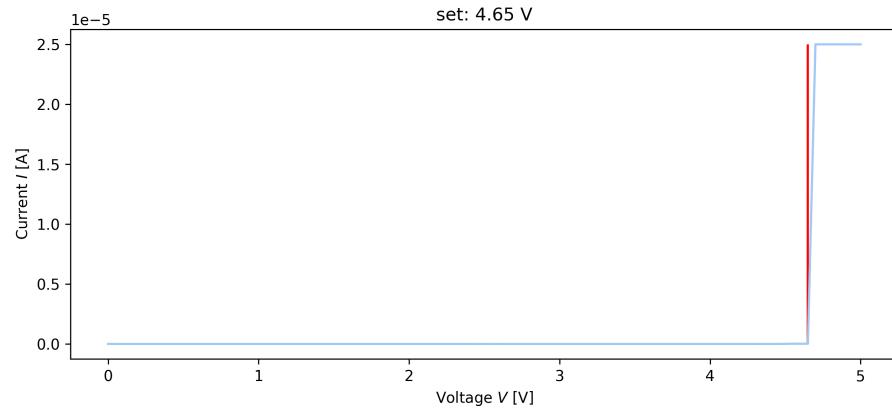


## set

---

- **Time:** 05:22:26PM
- **Icc:** 25.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 13
- **Set Voltage:** 4.65 V

Set 4.7V, as if it was never formed

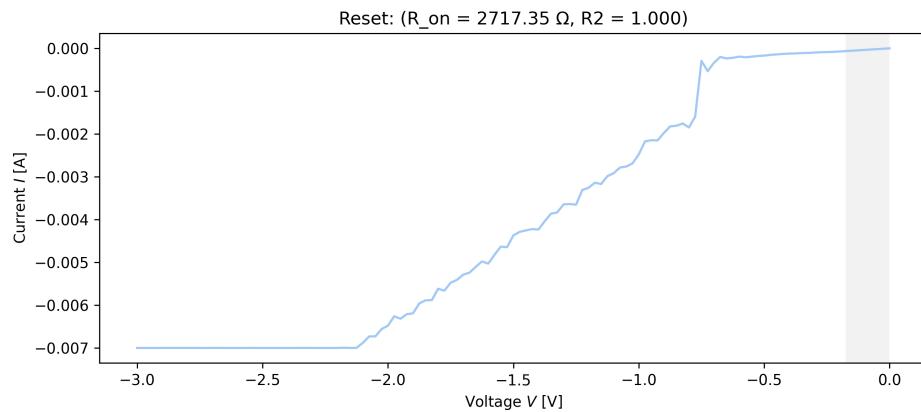


## reset

---

- **Time:** 05:23:20PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -3V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.610 V/s\*
- **Cycle:** 13
- **Resistance:** 2717.35 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not reset

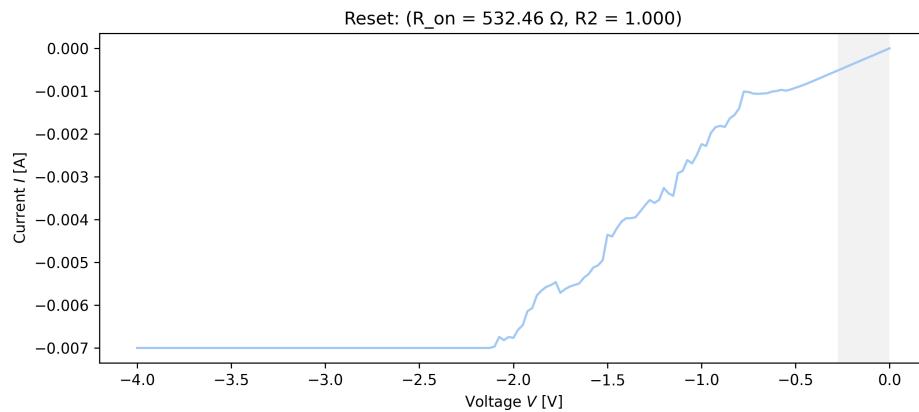


## reset

---

- **Time:** 05:23:59PM
- **I<sub>cc</sub>:** 7.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.723 V/s\*
- **Cycle:** 14
- **Resistance:** 532.46 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not reset still

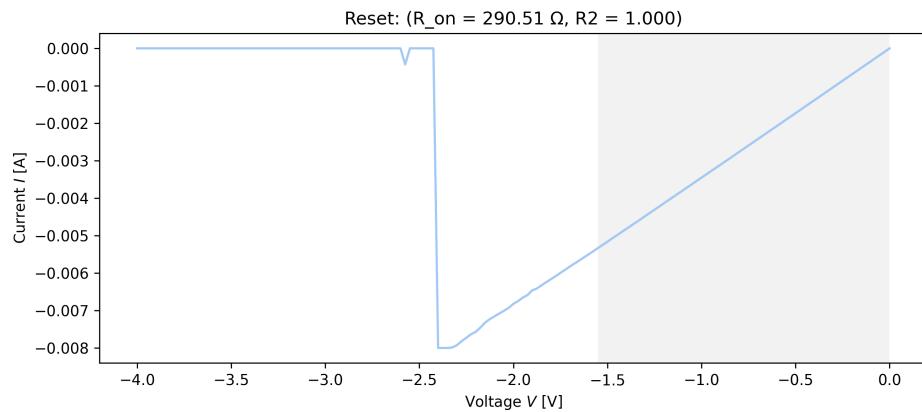


## reset

---

- **Time:** 05:24:28PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.826 V/s\*
- **Cycle:** 15
- **Resistance:** 290.51 Ω
- **Linear Fit R2:** 1.000

Reset, slope behaving as expected for larger set Icc

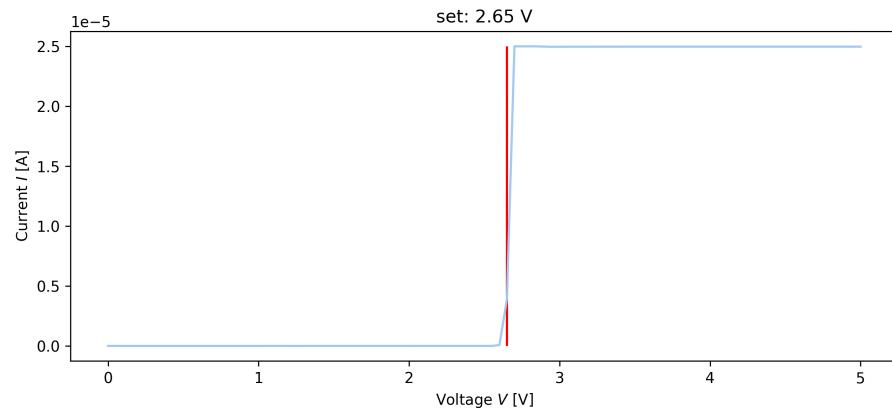


## set

---

- **Time:** 05:25:52PM
- **Icc:** 25.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 16
- **Set Voltage:** 2.65 V

Set at 2.7V

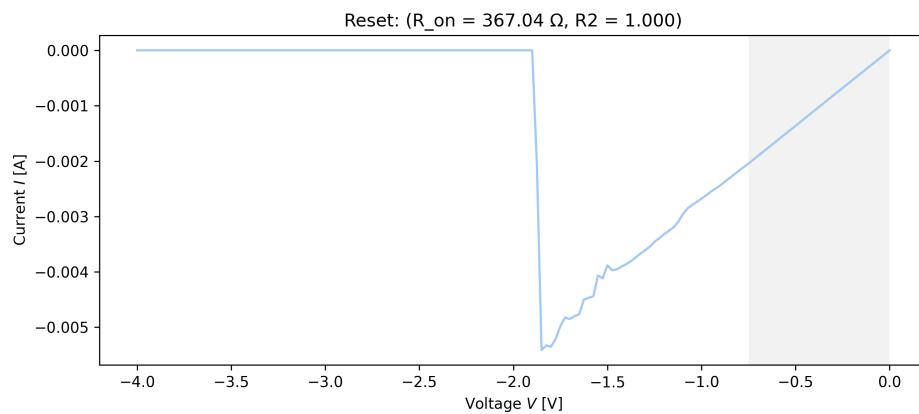


## reset

---

- **Time:** 05:27:13PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.800 V/s\*
- **Cycle:** 16
- **Resistance:** 367.04 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Successfully reset, steeper slope than 259

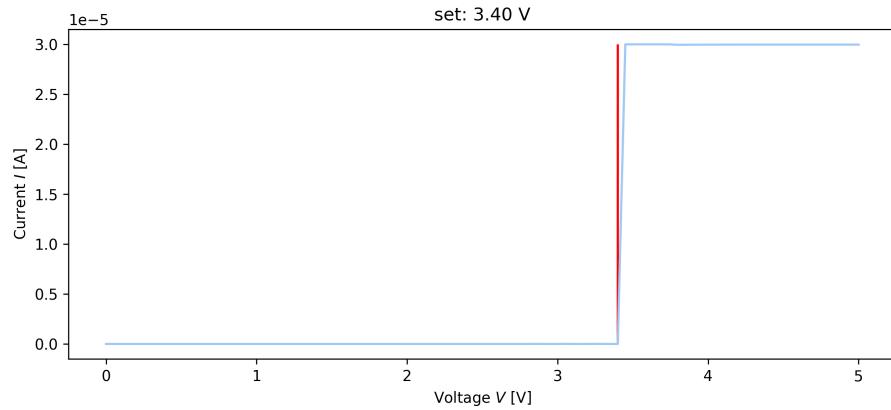


## set

---

- **Time:** 05:28:40PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 17
- **Set Voltage:** 3.40 V

Set at 3.45V

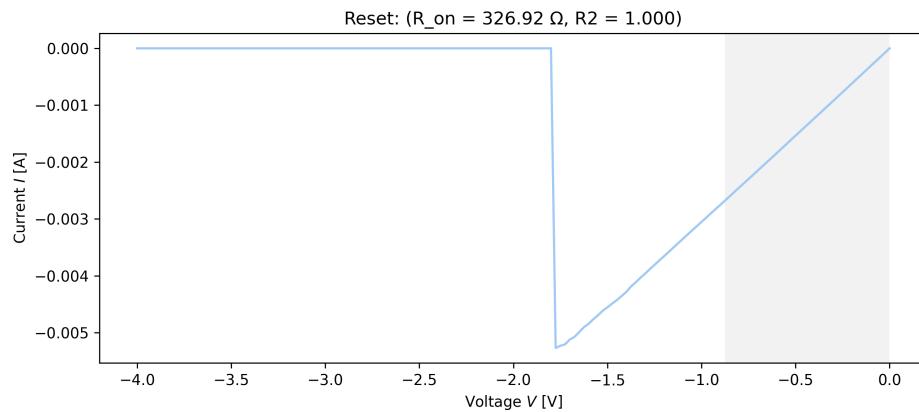


## reset

---

- **Time:** 05:29:24PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 17
- **Resistance:** 326.92 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, slope steeper than previous reset

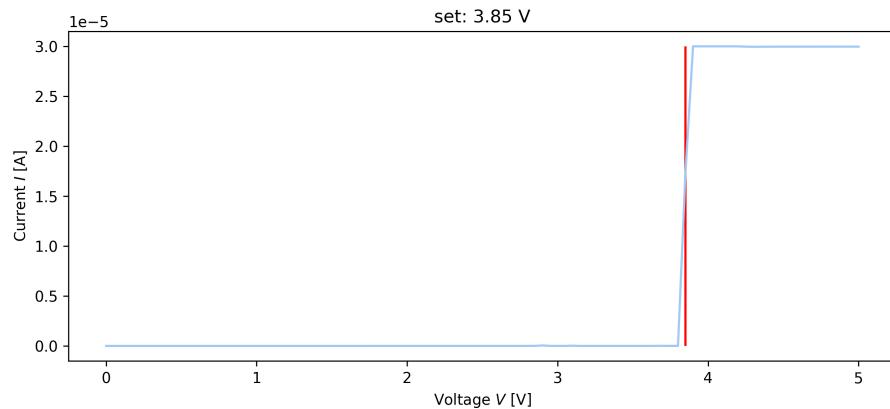


## set

---

- **Time:** 05:30:59PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 18
- **Set Voltage:** 3.85 V

Set at 3.9V

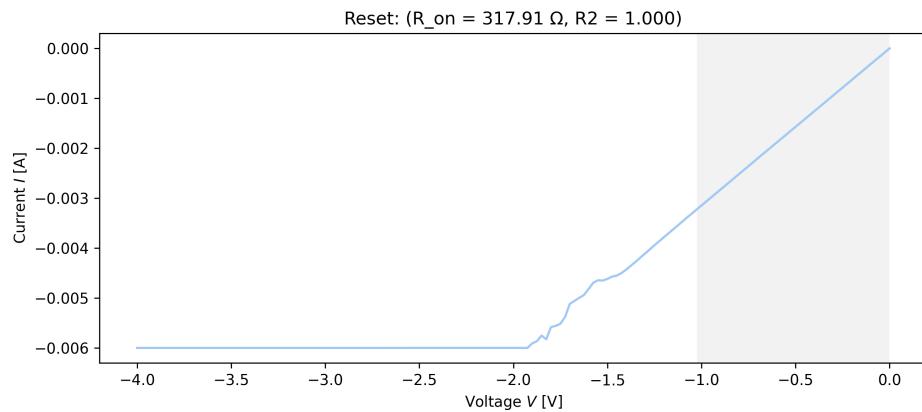


## reset

---

- **Time:** 05:31:24PM
- **I<sub>cc</sub>:** 6.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 18
- **Resistance:** 317.91 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Did not Reset

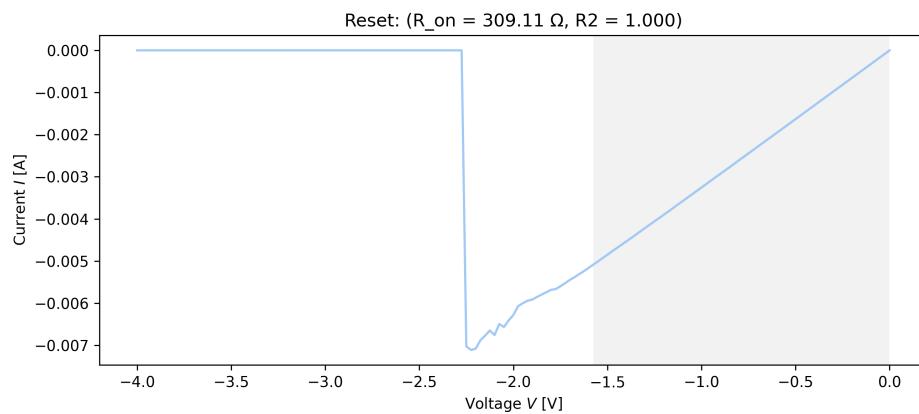


## reset

---

- **Time:** 05:31:50PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.826 V/s\*
- **Cycle:** 19
- **Resistance:** 309.11 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset

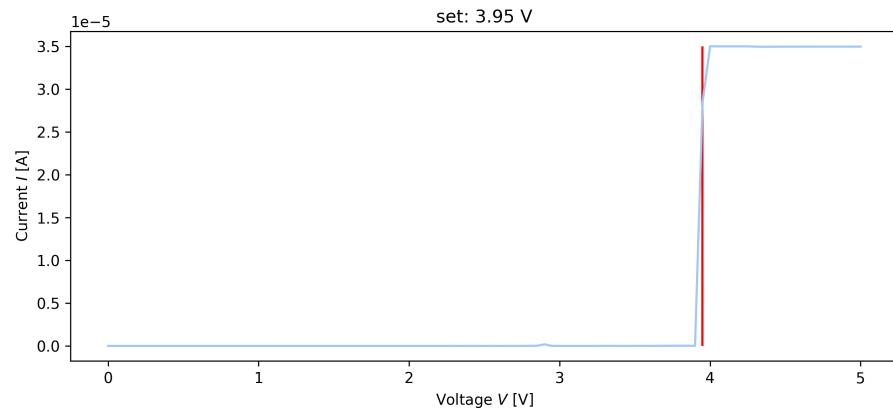


## set

---

- **Time:** 05:33:18PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 20
- **Set Voltage:** 3.95 V

Set at 4V

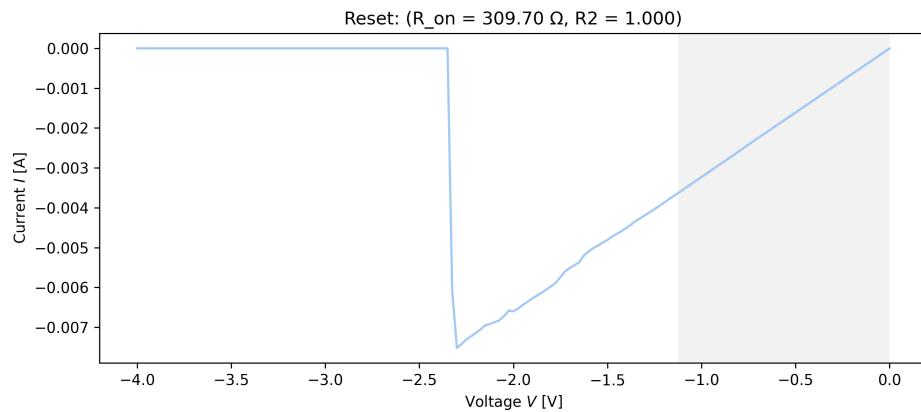


## reset

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- **Time:** 05:33:56PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.826 V/s\*
- **Cycle:** 20
- **Resistance:** 309.70 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset nicely

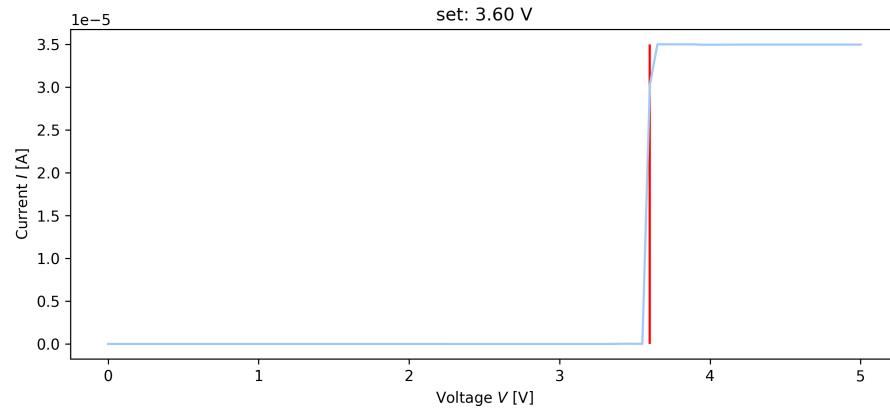


## set

---

- **Time:** 05:35:02PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 21
- **Set Voltage:** 3.60 V

Set at 3.65V

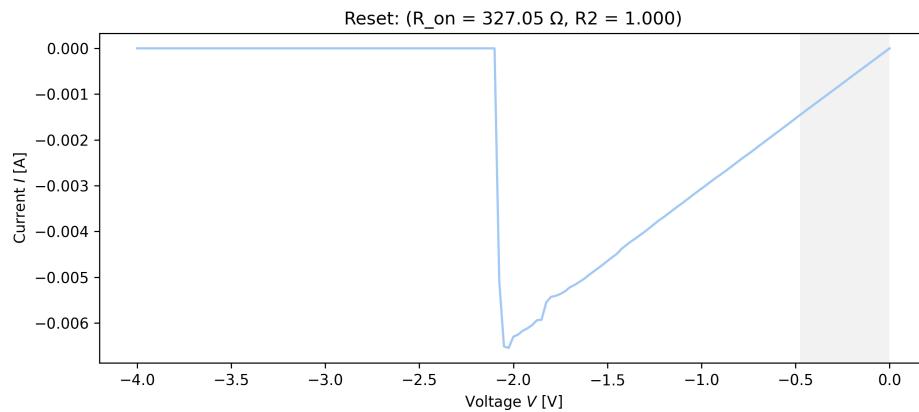


## reset

---

- **Time:** 05:35:32PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 21
- **Resistance:** 327.05 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset nicely

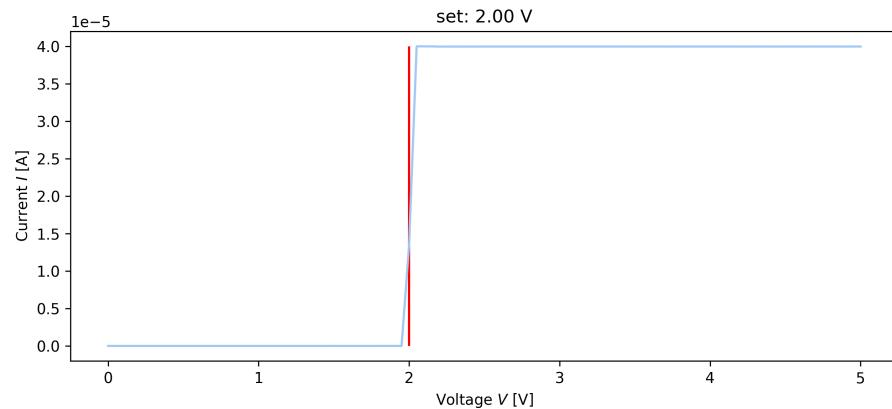


## set

---

- **Time:** 05:36:29PM
- **Icc:** 40.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 22
- **Set Voltage:** 2.00 V

Set at 2.05V

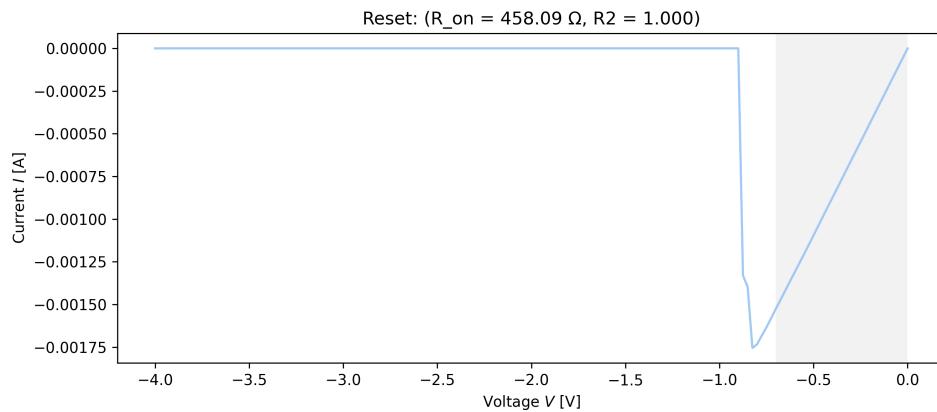


## reset

---

- **Time:** 05:37:10PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.720 V/s\*
- **Cycle:** 22
- **Resistance:** 458.09 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, slope going opposite direction than expected

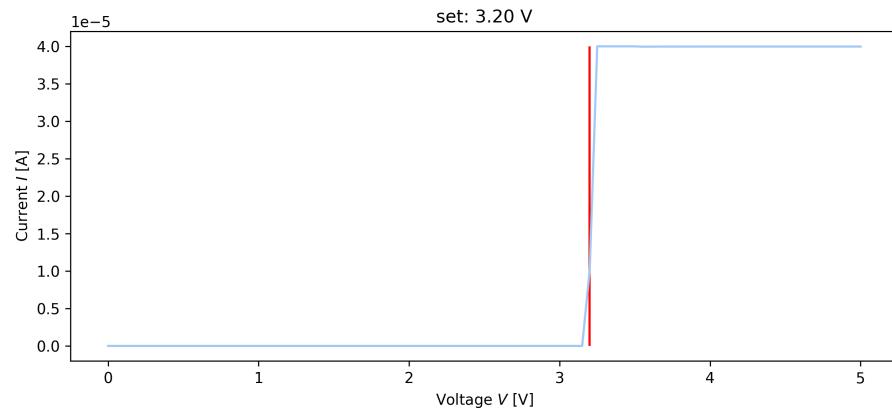


## set

---

- **Time:** 05:37:54PM
- **Icc:** 40.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 23
- **Set Voltage:** 3.20 V

Set at 3.25V

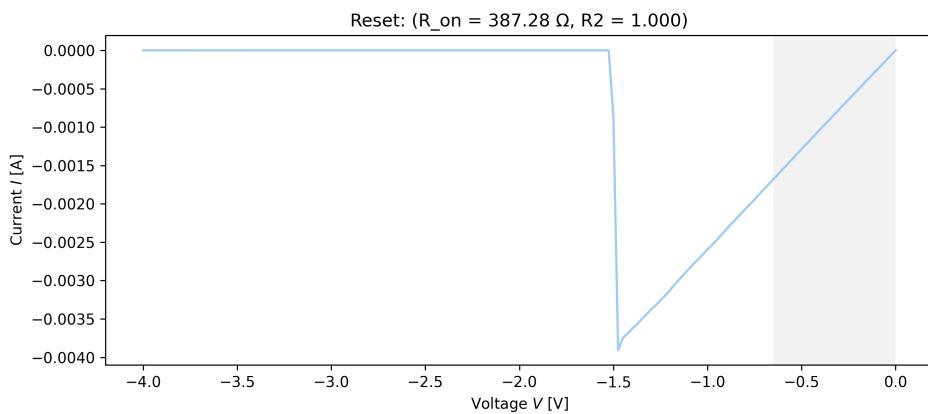


## reset

---

- **Time:** 05:38:17PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.788 V/s\*
- **Cycle:** 23
- **Resistance:** 387.28 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, slope still opposite of expected

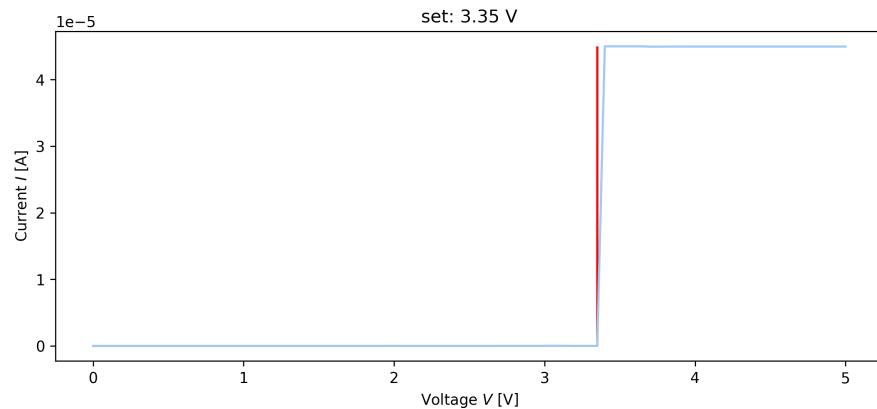


## set

---

- **Time:** 05:40:02PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 24
- **Set Voltage:** 3.35 V

Set at 3.4V

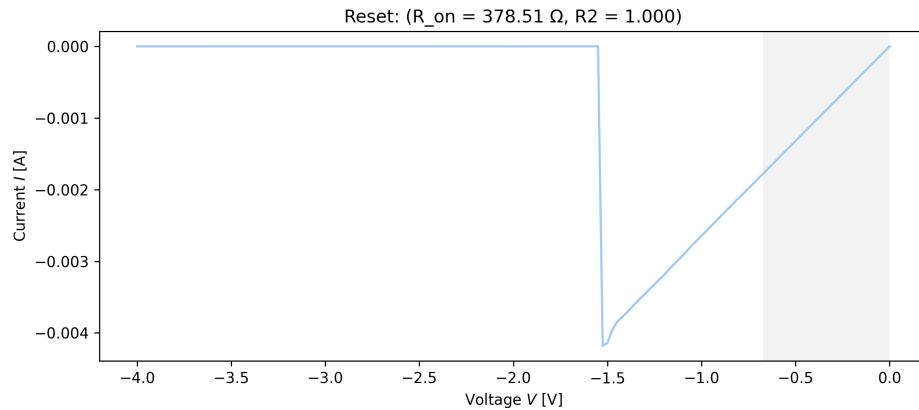


## reset

---

- **Time:** 05:40:31PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.788 V/s\*
- **Cycle:** 24
- **Resistance:** 378.51 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, steeper slope than 40uA but not that of 35uA

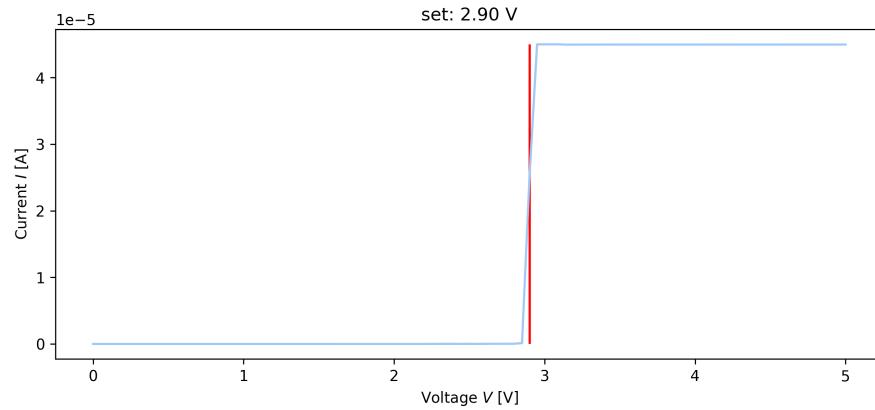


## set

---

- **Time:** 05:43:23PM
- **Icc:** 45.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 25
- **Set Voltage:** 2.90 V

Set at 2.95V

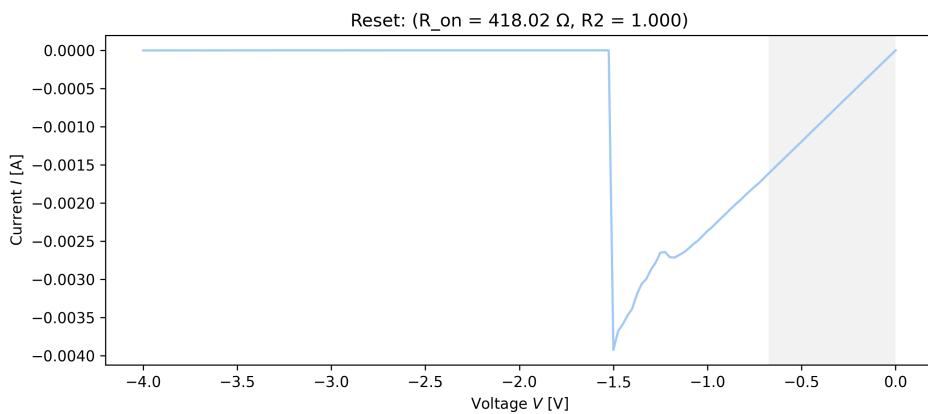


## reset

---

- **Time:** 05:43:53PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.777 V/s\*
- **Cycle:** 25
- **Resistance:** 418.02 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset at slightly higher slope than 268

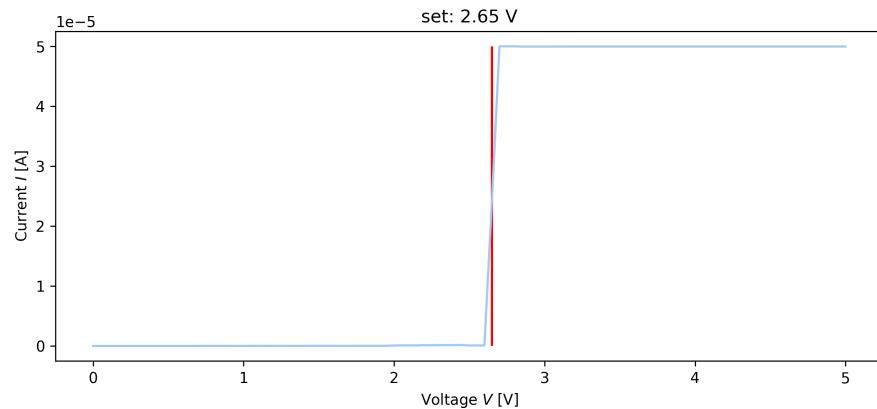


## set

---

- **Time:** 05:44:27PM
- **Icc:** 50.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 26
- **Set Voltage:** 2.65 V

Set at 2.7V

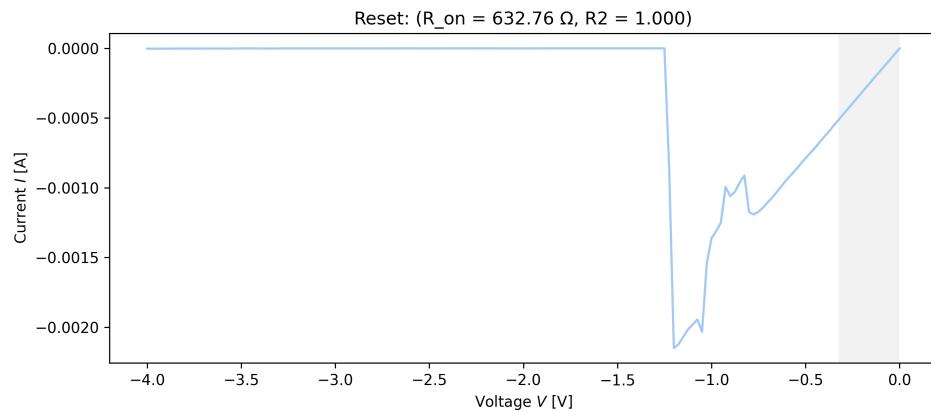


## reset

---

- **Time:** 05:44:58PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.703 V/s\*
- **Cycle:** 26
- **Resistance:** 632.76 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, much smaller slope and slightly erratic

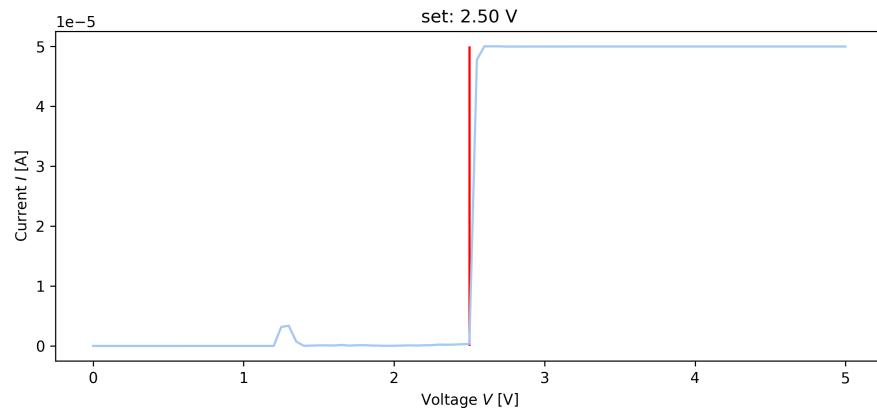


## set

---

- **Time:** 05:45:27PM
- **Icc:** 50.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 27
- **Set Voltage:** 2.50 V

Set at 2.6V

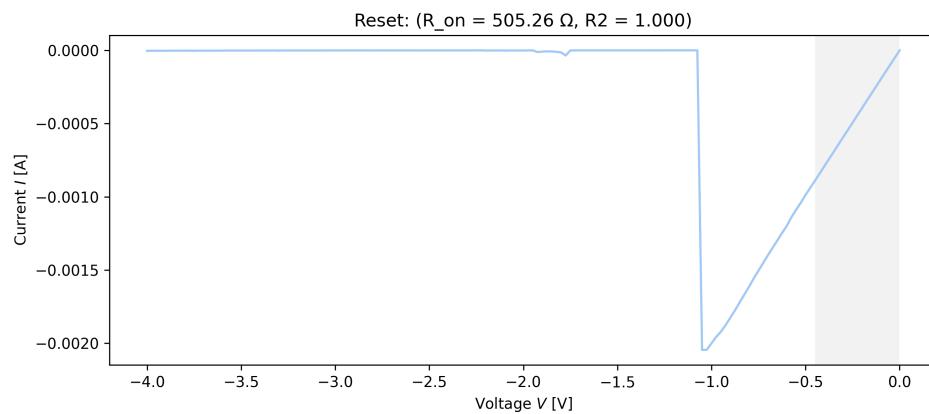


## reset

---

- **Time:** 05:45:54PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.743 V/s\*
- **Cycle:** 27
- **Resistance:** 505.26 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset, shallower slope than Run 269

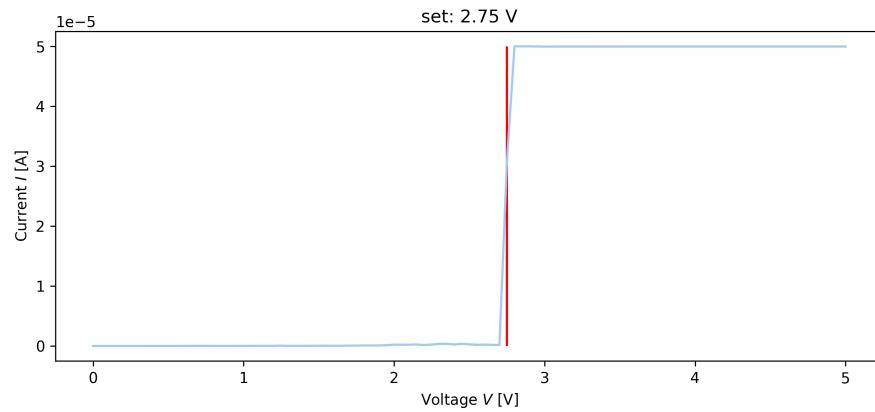


## set

---

- **Time:** 05:46:27PM
- **Icc:** 50.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s\*
- **Cycle:** 28
- **Set Voltage:** 2.75 V

set at 2.8V

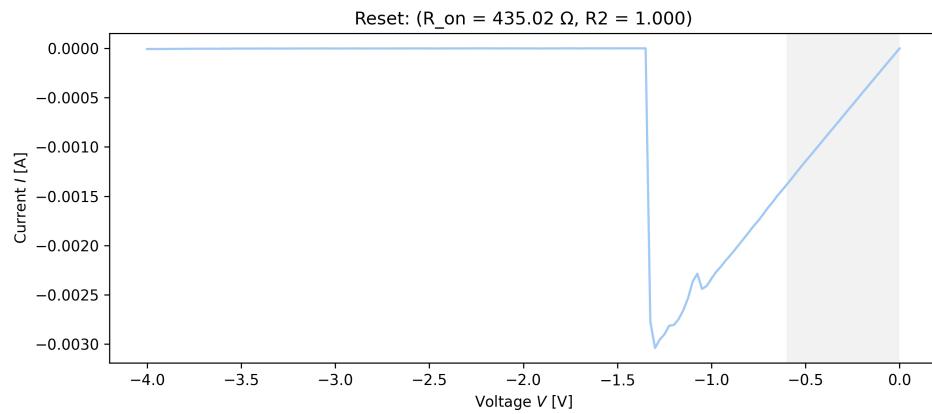


## reset

---

- **Time:** 05:46:52PM
- **I<sub>cc</sub>:** 8.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.776 V/s\*
- **Cycle:** 28
- **Resistance:** 435.02 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Reset

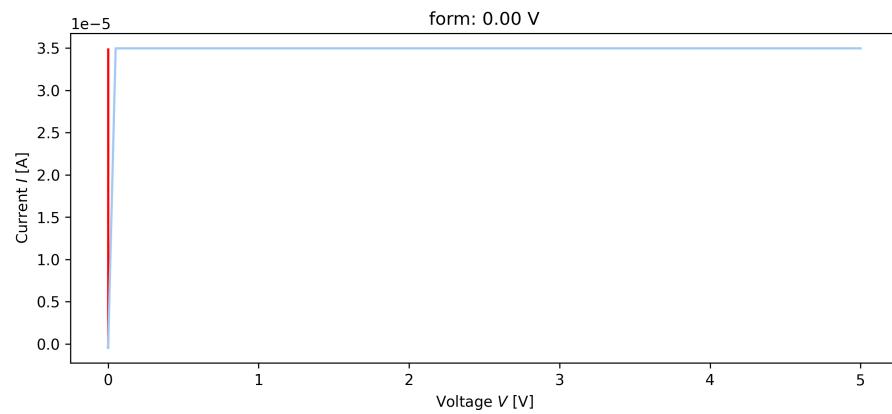


## form

---

- **Time:** 05:00:16PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.836 V/s\*
- **Cycle:** 29
- **Error:** Set failed

Set, everything in array may be shorted

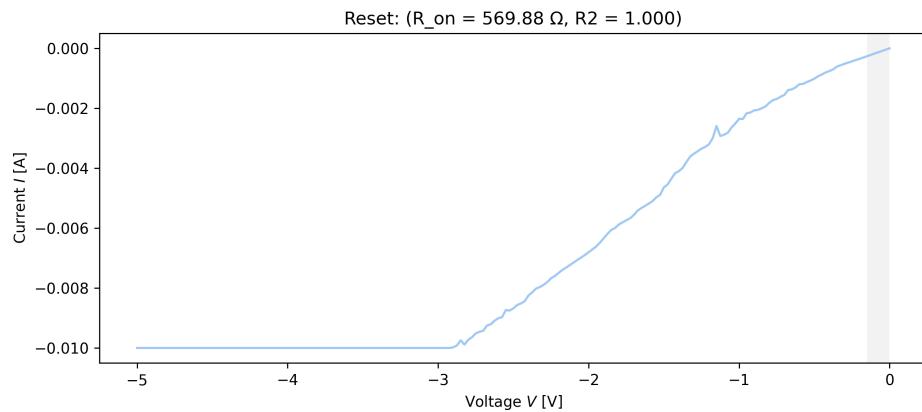


## reset

---

- **Time:** 05:00:33PM
- **I<sub>cc</sub>:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.743 V/s\*
- **Cycle:** 29
- **Resistance:** 569.88 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Didn't Reset

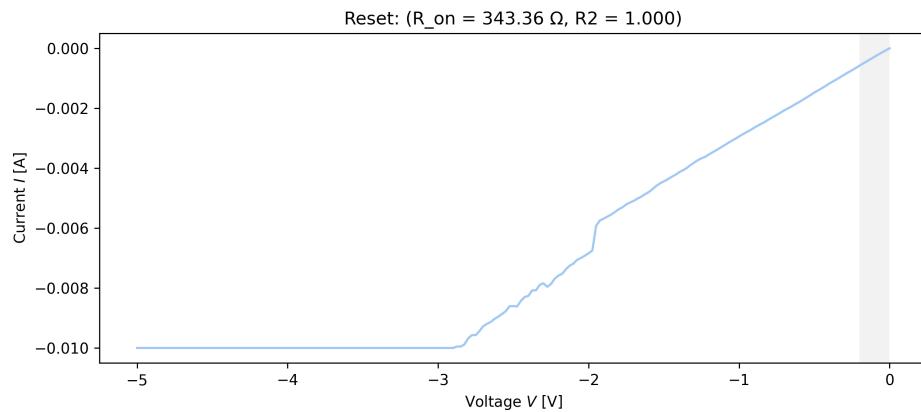


## reset

---

- **Time:** 05:00:47PM
- **I<sub>cc</sub>:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.812 V/s\*
- **Cycle:** 30
- **Resistance:** 343.36 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Didn't Reset

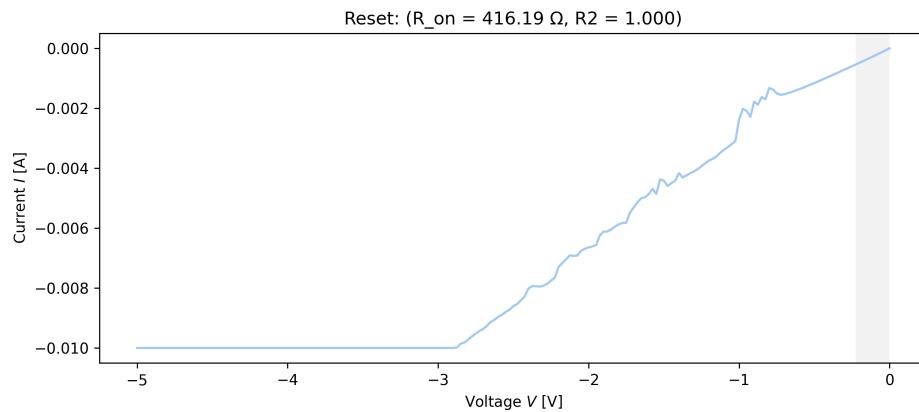


## reset

---

- **Time:** 05:01:07PM
- **I<sub>cc</sub>:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.776 V/s\*
- **Cycle:** 31
- **Resistance:** 416.19 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Didn't Reset



## reset

---

- **Time:** 05:01:39PM
- **I<sub>cc</sub>:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -0.839 V/s\*
- **Cycle:** 32
- **Resistance:** 282.15 Ω
- **Linear Fit R<sub>2</sub>:** 1.000

Didn't Reset

