International Rectifier

# Single-Event-Effects Test Report

## R6, 250V, N

Cyclotron Institute · Texas A&M University
Radiation Effects Facility

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International Rectifier

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## INTRODUCTION

On October 5th 2004, April 30th 2005 and August 23rd 2005, International Rectifier Corp. (IR) tested several product types for Single Event Effects (SEE) hardness. The irradiation was performed at Texas A & M University, using the K500 Superconducting Cyclotron. The Silver (Ag), Xenon (Xe) and Gold (Au) ion species with three (3) different combinations of Energy, Range and Linear-Energy-Transfer (LET) levels was used to characterize and verify the SEE hardness of each product type. The product types submitted for evaluation and this report are included in Table 1 below:

**Table 1 Product Types Tested**

| Product Type | BVDSS Rating | Gen. / Channel / Process | Wafer Lot |
|---|---|---|---|
| IRH67264 | 250 Volts | R6 / N / 250 Volts | ER51915 |
| IRH67264 | 250 Volts | R6 / N / 250 Volts | ER54738 |

The wafer lots noted above are the lots from which the test samples originated. For each product type, the results of testing herein are applicable to all other wafer lots having the same design and process.
Additionally, Mr. Louis Jaquish of Defense Supply Center Columbus (DSCC-VQE) has performed an audit of IR for the purpose of assigning lab suitability and has granted IR a Letter of Lab Suitability for Test Method 1080 in June 1998. Similarly, Mr. Thomas Hood had grant IR a Letter of Lab Suitability for Test Method 1080 in April 2005 for Texas A&M Cyclotron Facility.

## TEST METHOD

The test method used as a guide in developing the test plan is MIL-STD-750, Test Method 1080. The test method establishes the basic requirements for the performance of the test. Additionally, DSCC has established a minimum acceptance level of three (3) devices for each insitu bias condition. Test method 1080, in conjunction with DSCC requirements, was utilized to write the test plan.

## TEST PLAN and PROCEDURE

The test plan is included in Appendix C. In summary, the testing occurred in the following manner: All devices / test samples were built and electrically tested in TO-3 packages. The lid was removed from each test sample at the test site or the samples were produced without the lid. Up to 18 test samples were loaded onto the test board and placed into the beam line, under high vacuum conditions. The desired test sample was positioned into the beam line, and when ready the beam shutter was removed beginning the irradiation of the test sample. Once the desired fluence was achieved the beam was automatically shuttered and the bias removed. The biasing equipment then subjected the test samples to gate stresses up to 20V.
The Ion with its LET and Energy must be selected for a Range of worst-case SEE Responses.

# TEST FACILITY

The K500 Superconducting Cyclotron is equipped with the necessary dosimetry to ensure the ion beam is meeting the customer expectation. A printout of the runs, included in Appendix B, also includes the beam parameters, i.e., LET, energy, Range, etc., for each run. Table 2 summarizes the 3 beam criteria for the ion species properly selected and utilized.

**Table 2. Ion Beam Criteria**

| Ion | TAMU Set-Up A MeV / nucleon | LET MeV/(mg/cm$^2$) | Energy MeV | Range µm |
|---|---|---|---|---|
| **Ag** | 15 | 43 | 1217 | 112 |
| **Xe** | 25 | 43 | 2440 | 205 |
| **Xe** | 15 | 59 | 823 | 66 |
| **Au** | 15 | 90 | 1480 | 80 |

The fluence and flux specified for this test was 3E5 ions/cm$^2$ and 1E4 ions/cm$^2$/sec, respectively. The beam diameter was set to cover the whole die-attachment area. The angle of incidence was set to zero (normal to the die surface).

# RESULTS

The insitu bias conditions, where 0 failures occurred for each product type, are shown in Table 3. These results are shown graphically in Figure 1 as a plot of the Safe Operation Area (SOA). Each point on the graph, or insitu bias condition, has been verified by irradiating and subsequent electrical testing of a minimum of 3 devices, with no valid failures allowed. The devices were returned to IR and tested using production ATE. The results of the test were inspected and matched to the notes taken during the test, see Appendix F. The post-irradiation data correlates with the expected test results.

It should be noted that acceptance is assumed for product types operating at conditions below those tested herein. For example the IRH67264 was not tested under the $V_{GS}$ bias conditions of 0V through -10V with the Ag ion of LET=43 MeV/(mg/cm$^2$). The test engineer made a calculated risk assessment based on SEE Process History & SEE results at lower LET and chose to begin characterization and verification at $V_{GS}$ = -15V. The insitu acceptance at the -15V was then extended to the lower $V_{GS}$ bias voltages.

Furthermore the extension of more stressful conditions to less stressful conditions shall also apply to the LET conditions of the various ion species. For example successful operation using the Au ion (LET of 90 MeV/(mg/cm$^2$)) shall also imply that any other ion with a LET < 90, shall also be acceptable and not require verification.

The different runs and respective test conditions are all tabulated in Appendices A and B. Table 4 may be used as an index to identify which runs apply to a specific product type with a specific ion. Unlisted Runs are not related to this report.

**Table 3 Device IRH67264 (R6, 250V, N) Insitu Bias Conditions ($V_{DS}$ vs. $V_{GS}$) with Ion Species**

| Wafer Lot | Ion (LET) | VGS=0V | VGS=-5V | VGS=-10V | VGS=-14V | VGS=-15V | VGS=-17V | VGS=-20V |
|---|---|---|---|---|---|---|---|---|
| ER51915 | Ag (43) | Qualified | Qualified | Qualified | Qualified | 250 V | 100 V | 50 V |
| | Xe (59) | Qualified | Qualified | 250 V | Qualified | 50 V | | |
| | Au (90) | Qualified | 75 V | | | | | |
| ER54738 | Xe (60.0) | SEB-Immuned @ VDS≤260V | | | | SEB & SEGR Immuned @ VDS≤250V | | |
| | Xe (57.9) | | | | | | | |
| | Xe (56.2) | | | | | **Worst-Case SEGR** | | |
| | Xe (53.7) | | | | | SEGR | | |
| | Xe (50.3) | | | | | SEB & SEGR Immuned @ VDS≤250V | | |

**Note:** "Qualified" indicates part is qualified by extension of insitu bias testing at higher VGS level. See Concluding Tutorial for more details.

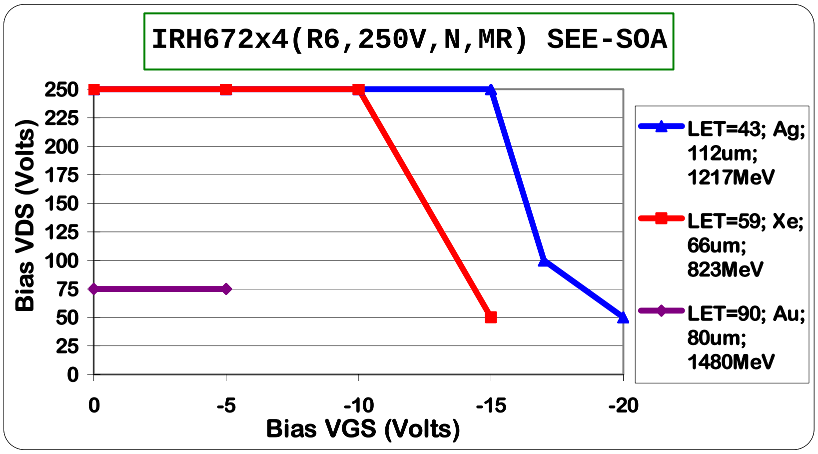
**Table 4 Run Number Index**

| Device Type / Part Number | Wafer Lot Number | Ion Beam Conditions | | | Run Date | Run Number |
|---|---|---|---|---|---|---|
| | | Ion (LET) | Surface Energy | Range | | |
| **IRH672x4** (R6, 250Volts, N-channel) | ER51915A | Xe (59) | 823MeV | 66µm | 04-30-2005 | 001 to 024 |
| | | Ag (43) | 1217MeV | 112µm | 04-30-2005 | 152 to 177 |
| | | Au (90) | 1480MeV | 80µm | 04-30-2005 | 371 to 376 |
| **Worst-Case Beam Condition Characterization** | ER54738 | Xe (60.0) | 683MeV | 56µm | 08-23-2005 | 237 to 241 |
| | ER54738 | Xe (57.9) | 915MeV | 73µm | 08-23-2005 | 237 to 241 |
| | ER54738 | Xe (56.2) | 1062MeV | 84µm | 08-23-2005 | 237 to 241 |
| | ER54738 | Xe (53.7) | 1278MeV | 101µm | 08-23-2005 | 242 to 263 |

## Figure 1 Device Safe Operating Area

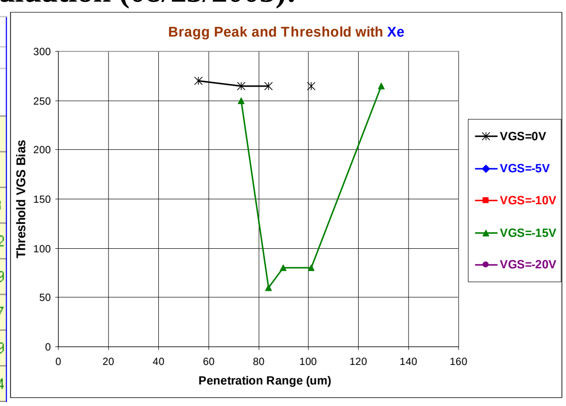
**IRH67264**

| VGS Bias | LET=43; Ag; 112um; 1217MeV | LET=59; Xe; 66um; 823MeV | LET=90; Au; 80um; 1480MeV |
|---|---|---|---|
| 0 | 250 | 250 | **75** |
| -5 | 250 | 250 | **75** |
| -10 | 250 | **250** | |
| -15 | **250** | **50** | |
| -17 | **100** | | |
| -20 | **50** | | |
| **ER51915, Split A 4/30/2005** | **Ag @ 15AMeV** | **Xe @ 15AMeV** | **Au @ 15AMeV** |




## Wafer Lot ER54738 for worst-case beam-condition Evaluation (08/23/2005):

| With 15AMeV Xenon (Xe) Ion | | | | Bias VGS = 0 Volts | | | Bias VGS = -15 Volts | | |
|---|---|---|---|---|---|---|---|---|---|
| Actual SEE Beam Info. (AirGap) | | | | Charact. VDS Bias | | Run #'s | Charact. VDS Bias | | Run #'s |
| Air-Gap (cm) | Surface-Energy | Surface LET | Range (µm) | Last-Pass (V) | Failed (V) | From To | Last-Pass (V) | Failed (V) | From To |
| | | | | | | | | | |
| 1.43 | | | | | | | | | |
| 1.43 | 1623 | 50.3 | 129 | | | | 265 | None | 480 thru 48 |
| 1.43 | 1278 | 53.7 | 101 | 265 | None | 423 thru 430 | 80 | 90 | 468 thru 472 |
| 1.43 | 1150 | 55.2 | 90 | | | | 80 | 90 | 473 thru 479 |
| 1.43 | 1062 | 56.2 | 84 | 265 | None | 431 thru 436 | 60 | 70 | 460 thru 467 |
| 1.43 | 915 | 57.9 | 73 | 265 | None | 437 thru 440 | 250 | 255 | 455 thru 459 |
| 1.43 | 683 | 60.6 | 56 | 270 | None | 441 thru 445 | | | 446 thru 454 |



# CONCLUSION

From worst-case beam-condition Evaluations, the 250-Volt N-Channel Dual-Epi R6 (IRHC672x4) is SEB-immune (regardless of Bragg Peak position) and SEGR-worst under $V_{GS}$=-15V with Bragg Peak near buffer-substrate interface.

For a final SEE Specification, the SEE Results from all three wafer lots are combined as worst-case result and listed below in both tabular and graphic SEE Safe-Operating-Area. The 250-Volt N-Channel Dual-Epi R6 (IRHC672x4) is SEE-hard at 100% Rated $V_{DS}$ against the charged Silver (Ag) ion (LET=43) with -15V $V_{GS}$ applied and against Xenon (Xe) ion (LET=59) with -10V $V_{GS}$ applied.

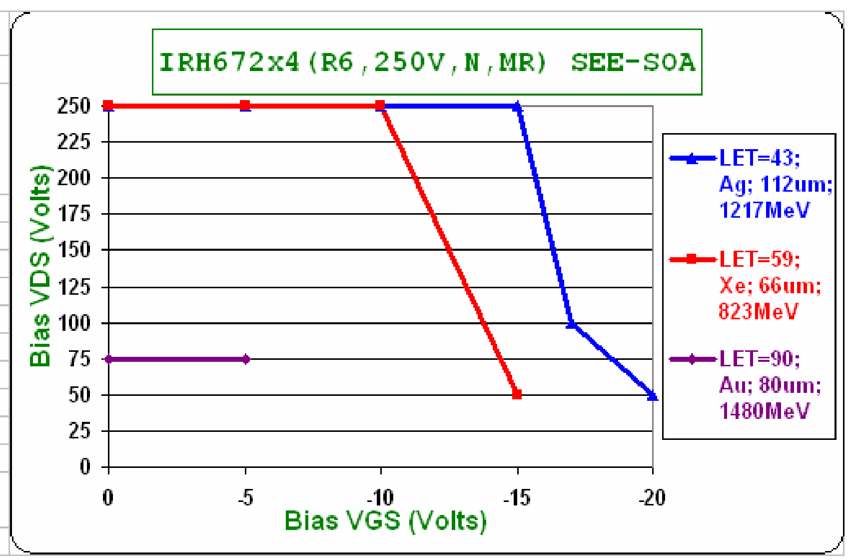
**FINAL Single-Event-Effect Safe Operating Area (Tabular)**

| Device Type Part Number | Ion (LET) | Energy | Range | VGS=0V | VGS=-5V | VGS=-10V | VGS=-15V | VGS=-17V | VGS=-20V |
|---|---|---|---|---|---|---|---|---|---|
| **IRH672x4** (R6, 250Volts, N-Channel) | Ag (43) | 1217 MeV | 112 µm | *Qualified* | *Qualified* | *Qualified* | *250 V* | *100 V* | *50 V* |
| | Xe (59) | 823 MeV | 66 µm | *Qualified* | *Qualified* | *250 V* | *50 V* | | |
| | Au (90) | 1480 MeV | 80 µm | *75 V* | *75 V* | | | | |

**FINAL Single-Event-Effect Safe Operating Area (Graph)**

IRH672x4

| VGS Bias | LET=43; Ag; 112um; 1217MeV | LET=59; Xe; 66um; 823MeV | LET=90; Au; 80um; 1480MeV |
|---|---|---|---|
| 0 | 250 | 250 | 75 |
| -5 | 250 | 250 | 75 |
| -10 | 250 | 250 | |
| -15 | 250 | 50 | |
| -17 | 100 | | |
| -20 | 50 | | |
| | Ag @ 15AMeV | Xe @ 15AMeV | Au @ 15AMeV |



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CONCLUDING TUTORIAL

The following is presented to help the reader understand the basis on which SEE Testing is extended to the other part numbers.

# Extending Single Event Effects Testing

International Rectifier has designed Single Event Effects (SEE) experiments to maximize facility usage using four, industry accepted, assumptions as follows:

I. Test results for one die size are representative of other die sizes, if the process and design rules are not changed. In other words the scaling of die size has no affect if all other variables are held constant. Please note that for a given voltage and technology, there are no differences in design and process for the various sizes of IR's radiation hardened MOSFET die, thus the assumption is valid. In reality, IR will always test the largest available die size. We consider this a worst-case scenario. The industry standard for acceptance of a given in-situ bias condition, is the acceptable performance of three or more devices at the specified conditions. Presently a supplier could achieve this standard with size 1 die thru size 6 die. We believe that use of the smaller die reduces the probability of failure, and thus reduces the chance of a SEE problem being discovered. The size 1 die are about one-twelfth the size of the size 6 die. Thus successfully testing three size 6 die is roughly equivalent to testing 36 size 1 die. This results in a savings of valuable test time at the SEE test facility, without degrading the final test result.

II. Acceptable test results taken at given VGS and VDS conditions are applicable to lower VGS and VDS conditions. In other words an acceptable test result (>= 3 devices passing) at VGS = -15V and VDS = 200V, would also apply to VGS = -10, -5 or 0V at the same or lower VDS condition. In several cases parts have been tested at the worst-case in-situ bias condition of VGS = -20V and VDS = max rated BVDSS. With acceptable test results, the safe operation area, has been extended from VGS = 0 to –20V and VDS from 0 to the max rating. It is not necessary to verify every point below the accepted in-situ bias conditions. Again this saves valuable experiment time.

III. Acceptable test results taken with a given LET, would also apply at other lower LETs. It is generally accepted that successful test results with Iodine, for example, implies the device would be hard against Bromine, Krypton, Nickel, etc., ion species with a lower LET. It is not necessary to test at each lower LET, again saving valuable test time.

IV. The package used has no effect on the SEE hardness of a die. The die are characterized fully exposed to the ion beam. In other words the lid of the package is removed making the die visible. This removes the package as a variable when comparing test results. As a rule IR uses the common TO3 package for mounting die for SEE tests.

Each of the assumptions above is generally accepted within the industry. IR has verified their validity over the last several years and makes appropriate use of them to maximize the benefit for our customers.

# Appendix A

# Log Sheets

# (SEE Run Data)

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| Test Date | SEE Facility | Run # | Ion | LET *MeV.cm²/mg* | Energy *MeV* | Range *µm* | Flux *#/cm²/sec* | Fluence *#/cm²* | Angle *deg* | BeamDia. *cm.* | Vacuum or Air? | Device Type | S/N | Socket # | VGS *Volts* | VDS *Volts* | Pass/Fail *Blank=Pass* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **250V, N, MR, R6 to Xenon (with LET=59)** | | | | | | | | | | **Split A** | | | | | | | | |
| 4/30/2005 | TAMU | 1 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -5 | 100 | | |
| 4/30/2005 | TAMU | 2 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -5 | 150 | | |
| 4/30/2005 | TAMU | 3 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -5 | 250 | | |
| 4/30/2005 | TAMU | 4 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -10 | 250 | | |
| 4/30/2005 | TAMU | 5 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -15 | 50 | | |
| 4/30/2005 | TAMU | 6 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A1 | 1 | -15 | 60 | **F** | *Failed Blown* |
| 4/30/2005 | TAMU | 7 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A2 | 3 | -10 | 250 | | Curve-Point |
| 4/30/2005 | TAMU | 8 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A3 | 4 | -10 | 250 | | Curve-Point |
| 4/30/2005 | TAMU | 9 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A4 | 5 | -10 | 250 | **F** | *Gate Stress @ -20V* |
| 4/30/2005 | TAMU | 10 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A5 | 6 | -10 | 250 | | Curve-Point |
| 4/30/2005 | TAMU | 11 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A6 | 7 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 12 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A7 | 8 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 13 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A8 | 9 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 14 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A9 | 10 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 15 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A10 | 11 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 16 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A11 | 12 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 17 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A12 | 13 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 18 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A14 | 15 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 19 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A15 | 16 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 20 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A16 | 17 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 21 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A17 | 18 | -10 | 250 | | Curve-Point + |
| 4/30/2005 | TAMU | 22 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A6 | 7 | -15 | 50 | | Curve-Point |
| 4/30/2005 | TAMU | 23 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A7 | 8 | -15 | 50 | | Curve-Point |
| 4/30/2005 | TAMU | 24 | **Xe** | 59 | 823 | 66 | 1.44E+04 | 3.00E+05 | 0 | | Vacuum | IRH67264 | A8 | 9 | -15 | 50 | | Curve-Point |
| **250V, N, MR, R6 to Silver Ag (with LET=43)** | | | | | | | | | | **Split A** | | | | | | | | |
| 4/30/2005 | TAMU | 152 | **Ag** | 43 | 1217 | 112 | 2.70E+04 | 3.02E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -10 | 250 | | |
| 4/30/2005 | TAMU | 153 | **Ag** | 43 | 1217 | 112 | 2.68E+04 | 3.07E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -15 | 150 | | |
| 4/30/2005 | TAMU | 154 | **Ag** | 43 | 1217 | 112 | 2.96E+04 | 3.07E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -15 | 175 | | |
| 4/30/2005 | TAMU | 155 | **Ag** | 43 | 1217 | 112 | 2.74E+04 | 2.86E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -15 | 200 | | |
| 4/30/2005 | TAMU | 156 | **Ag** | 43 | 1217 | 112 | 3.00E+04 | 3.06E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -15 | 225 | | |
| 4/30/2005 | TAMU | 157 | **Ag** | 43 | 1217 | 112 | 2.77E+04 | 2.97E+05 | 0 | | Vacuum | IRH67264 | A18 | 1 | -15 | 250 | | *Curve-Point* |
| 4/30/2005 | TAMU | 158 | **Ag** | 43 | 1217 | 112 | 2.85E+04 | 3.04E+05 | 0 | | Vacuum | IRH67264 | A19 | 3 | -15 | 250 | | *Curve-Point* |
| 4/30/2005 | TAMU | 159 | **Ag** | 43 | 1217 | 112 | 2.62E+04 | 3.11E+05 | 0 | | Vacuum | IRH67264 | A20 | 4 | -15 | 250 | | *Curve-Point* |
| 4/30/2005 | TAMU | 160 | **Ag** | 43 | 1217 | 112 | 2.68E+04 | 3.07E+05 | 0 | | Vacuum | IRH67264 | A21 | 5 | -20 | 50 | | |
| 4/30/2005 | TAMU | 161 | **Ag** | 43 | 1217 | 112 | 2.51E+04 | 2.10E+05 | 0 | | Vacuum | IRH67264 | A21 | 5 | -20 | 75 | **F** | *Failed Blown* |
| 4/30/2005 | TAMU | 162 | **Ag** | 43 | 1217 | 112 | 2.72E+04 | 3.06E+05 | 0 | | Vacuum | IRH67264 | A22 | 6 | -20 | 50 | | *Curve-Point* |
| 4/30/2005 | TAMU | 163 | **Ag** | 43 | 1217 | 112 | 2.68E+04 | 2.95E+05 | 0 | | Vacuum | IRH67264 | A23 | 7 | -20 | 50 | | *Curve-Point* |
| 4/30/2005 | TAMU | 164 | **Ag** | 43 | 1217 | 112 | 2.69E+04 | 3.08E+05 | 0 | | Vacuum | IRH67264 | A24 | 8 | -20 | 50 | | *Curve-Point* |
| 4/30/2005 | TAMU | 165 | **Ag** | 43 | 1217 | 112 | 2.69E+04 | 3.11E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 50 | | |
| 4/30/2005 | TAMU | 166 | **Ag** | 43 | 1217 | 112 | 2.48E+04 | 3.10E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 75 | | |
| 4/30/2005 | TAMU | 167 | **Ag** | 43 | 1217 | 112 | 2.55E+04 | 3.02E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 100 | | |
| 4/30/2005 | TAMU | 168 | **Ag** | 43 | 1217 | 112 | 2.61E+04 | 3.11E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 125 | | |
| 4/30/2005 | TAMU | 169 | **Ag** | 43 | 1217 | 112 | 2.67E+04 | 3.02E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 150 | | |
| 4/30/2005 | TAMU | 170 | **Ag** | 43 | 1217 | 112 | 2.30E+04 | 3.09E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 175 | | |
| 4/30/2005 | TAMU | 171 | **Ag** | 43 | 1217 | 112 | 2.41E+04 | 1.47E+05 | 0 | | Vacuum | IRH67264 | A25 | 9 | -17 | 200 | **F** | *Failed Blown* |

| Test | SEE | Run | Ion | LET | Energy | Range | Flux | Fluence | Angle | BeamDia. | Vacuum | Device | S/N | Socket | VGS | VDS | Pass/Fail | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Facility | # | | *MeV.cm²/mg* | *MeV* | *µm* | *#/cm²/sec* | *#/cm²* | *deg* | *cm.* | or Air? | Type | | # | *Volts* | *Volts* | ***Blank=Pass*** | |
| **250V, N, MR, R6 to Silver Ag (with LET=43)** | | | | | | | | | | **Split A** | | | | | | | | |
| 4/30/2005 | TAMU | 172 | **Ag** | 43 | 1217 | 112 | 2.42E+04 | 1.77E+05 | 0 | | Vacuum | IRH67264 | A26 | 10 | -17 | 175 | **F** | *Failed Blown* |
| 4/30/2005 | TAMU | 173 | **Ag** | 43 | 1217 | 112 | 2.63E+04 | 2.88E+05 | 0 | | Vacuum | IRH67264 | A27 | 11 | -17 | 150 | | *Curve-Point* |
| 4/30/2005 | TAMU | 174 | **Ag** | 43 | 1217 | 112 | 2.63E+04 | 3.02E+05 | 0 | | Vacuum | IRH67264 | A28 | 12 | -17 | 150 | | *Curve-Point* |
| 4/30/2005 | TAMU | 175 | **Ag** | 43 | 1217 | 112 | 2.58E+04 | 1.41E+05 | 0 | | Vacuum | IRH67264 | A29 | 13 | -17 | 150 | **F** | *Failed Blown* |
| 4/30/2005 | TAMU | 176 | **Ag** | 43 | 1217 | 112 | 3.68E+04 | 1.77E+05 | 0 | | Vacuum | IRH67264 | A30 | 15 | -17 | 125 | **F** | *Failed: SEGR* |
| 4/30/2005 | TAMU | 177 | **Ag** | 43 | 1217 | 112 | 3.92E+04 | 3.05E+05 | 0 | | Vacuum | IRH67264 | A31 | 16 | -17 | 100 | | *Curve-Point* |
| **250V, N, MR, R6 to Gold Au (with LET=90)** | | | | | | | | | | **Split A** | | | | | | | | |
| 4/30/2005 | TAMU | 371 | **Au** | 90 | 1480 | 80 | 2.24E+04 | 3.09E+05 | 0 | | Vacuum | IRH67264 | A34 | 1 | -5 | 50 | | |
| 4/30/2005 | TAMU | 372 | **Au** | 90 | 1480 | 80 | 2.15E+04 | 2.98E+05 | 0 | | Vacuum | IRH67264 | A34 | 1 | -5 | 75 | | |
| 4/30/2005 | TAMU | 373 | **Au** | 90 | 1480 | 80 | 2.11E+04 | 2.16E+05 | 0 | | Vacuum | IRH67264 | A34 | 1 | -5 | 100 | **F** | *PC Data: 1µA IDS Glitc* |
| 4/30/2005 | TAMU | 374 | **Au** | 90 | 1480 | 80 | 2.13E+04 | 3.02E+05 | 0 | | Vacuum | IRH67264 | A35 | 3 | -5 | 75 | | *Curve-Point* |
| 4/30/2005 | TAMU | 375 | **Au** | 90 | 1480 | 80 | 2.10E+04 | 2.99E+05 | 0 | | Vacuum | IRH67264 | A36 | 4 | -5 | 75 | | *Curve-Point* |
| 4/30/2005 | TAMU | 376 | **Au** | 90 | 1480 | 80 | 2.09E+04 | 3.03E+05 | 0 | | Vacuum | IRH67264 | A37 | 5 | -5 | 75 | | *Curve-Point* |

International
IOR Rectifier

| Test Date | SEE Facility | Run # | Ion | LET MeV.cm$^2$/mg | Energy MeV | Range µm | Flux #/cm$^2$/sec | Fluence #/cm$^2$ | Angle deg | BeamDia. cm. | Vacuum or Air | Device Type | S/N | Socket # | VGS Volts | VDS Volts | Pass/Fail Blank=Pass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **250V, N, MR, R6 to Xenon (with LET=53.7)** | | | | | | **Beam Bragg Peak at Upper Buffer** | | | | | | **WL# ER54738** | | | **SEB Evaluation** | | |
| 8/24/2005 | TAMU | 423 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 200 | |
| 8/24/2005 | TAMU | 424 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 210 | |
| 8/24/2005 | TAMU | 425 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 220 | |
| 8/24/2005 | TAMU | 426 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 230 | |
| 8/24/2005 | TAMU | 427 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 240 | |
| 8/24/2005 | TAMU | 428 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 250 | |
| 8/24/2005 | TAMU | 429 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 260 | |
| 8/24/2005 | TAMU | 430 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | 0 | 265 | Reached BVDSS |
| **250V, N, MR, R6 to Xenon (with LET=56.0)** | | | | | | **Beam Bragg Peak at Middle of First Epi Layer** | | | | | | **WL# ER54738** | | | **SEB Evaluation** | | |
| 8/24/2005 | TAMU | 431 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 220 | |
| 8/24/2005 | TAMU | 432 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 230 | |
| 8/24/2005 | TAMU | 433 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 240 | |
| 8/24/2005 | TAMU | 434 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 250 | |
| 8/24/2005 | TAMU | 435 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 260 | |
| 8/24/2005 | TAMU | 436 | **Xe** | 56.0 | 1062 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | 0 | 265 | Reached BVDSS |
| **250V, N, MR, R6 to Xenon (with LET=57.9)** | | | | | | **Beam Bragg Peak at between First Epi Layer and Buffer** | | | | | | **WL# ER54738** | | | **SEB Evaluation** | | |
| 8/24/2005 | TAMU | 437 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | 0 | 240 | |
| 8/24/2005 | TAMU | 438 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | 0 | 250 | |
| 8/24/2005 | TAMU | 439 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | 0 | 260 | |
| 8/24/2005 | TAMU | 440 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | 0 | 265 | Reached BVDSS |
| **250V, N, MR, R6 to Xenon (with LET=60.6)** | | | | | | | | **Beam Bragg Peak at Junction** | | | | **WL# ER54738** | | | **SEB Evaluation** | | |
| 8/24/2005 | TAMU | 441 | **Xe** | 60.6 | 683 | 56 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | 0 | 240 | |
| 8/24/2005 | TAMU | 442 | **Xe** | 60.6 | 683 | 56 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | 0 | 250 | |
| 8/24/2005 | TAMU | 443 | **Xe** | 60.6 | 683 | 56 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | 0 | 260 | |
| 8/24/2005 | TAMU | 444 | **Xe** | 60.6 | 683 | 56 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | 0 | 265 | |
| 8/24/2005 | TAMU | 445 | **Xe** | 60.6 | 683 | 56 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | 0 | 270 | Reached BVDSS |
| **250V, N, MR, R6 to Xenon (with LET=50.3)** | | | | | | **Beam Bragg Peak at Middle of Buffer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 446 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 150 | |
| 8/24/2005 | TAMU | 447 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 170 | |
| 8/24/2005 | TAMU | 448 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 190 | |
| 8/24/2005 | TAMU | 449 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 210 | |
| 8/24/2005 | TAMU | 450 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 230 | |
| 8/24/2005 | TAMU | 451 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 240 | |
| 8/24/2005 | TAMU | 452 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 250 | |
| 8/24/2005 | TAMU | 453 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 260 | |
| 8/24/2005 | TAMU | 454 | **Xe** | 50.3 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C5 | 14 | -15 | 265 | Reached BVDSS |
| **250V, N, MR, R6 to Xenon (with LET=57.9)** | | | | | | **Beam Bragg Peak at between First Epi Layer and Buffer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 455 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C6 | 15 | -15 | 200 | |
| 8/24/2005 | TAMU | 456 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C6 | 15 | -15 | 220 | |
| 8/24/2005 | TAMU | 457 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C6 | 15 | -15 | 240 | |
| 8/24/2005 | TAMU | 458 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C6 | 15 | -15 | 250 | High IGSS |
| 8/24/2005 | TAMU | 459 | **Xe** | 57.9 | 915 | 73 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C6 | 15 | -15 | 255 | Failed |
| **250V, N, MR, R6 to Xenon (with LET=56.0)** | | | | | | **Beam Bragg Peak at Middle of First Epi Layer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 460 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C7 | 16 | -15 | 220 | Failed |
| 8/24/2005 | TAMU | 461 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C8 | 17 | -15 | 160 | Failed |
| 8/24/2005 | TAMU | 462 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C9 | 18 | -15 | 50 | |

| Test Date | SEE Facility | Run # | Ion | LET *MeV.cm²/mg* | Energy *MeV* | Range *µm* | Flux *#/cm²/sec* | Fluence *#/cm²* | Angle *deg* | BeamDia. *cm.* | Vacuum or Air | Device Type | S/N | Socket # | VGS *Volts* | VDS *Volts* | Pass/Fail *Blank=Pass* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **250V, N, MR, R6 to Xenon (with LET=56.0)** | | | | | | **Beam Bragg Peak at Middle of First Epi Layer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 463 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C9 | 18 | -15 | 70 | |
| 8/24/2005 | TAMU | 464 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C9 | 18 | -15 | 90 | Failed |
| 8/24/2005 | TAMU | 465 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | -15 | 50 | |
| 8/24/2005 | TAMU | 466 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | -15 | 60 | |
| 8/24/2005 | TAMU | 467 | **Xe** | 56.2 | 1052 | 84 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C1 | 10 | -15 | 70 | Failed |
| **250V, N, MR, R6 to Xenon (with LET=53.7)** | | | | | | **Beam Bragg Peak at Upper Buffer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 468 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | -15 | 50 | |
| 8/24/2005 | TAMU | 469 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | -15 | 60 | |
| 8/24/2005 | TAMU | 470 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | -15 | 70 | |
| 8/24/2005 | TAMU | 471 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | -15 | 80 | |
| 8/24/2005 | TAMU | 472 | **Xe** | 53.7 | 1278 | 101 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C2 | 11 | -15 | 90 | Failed |
| **250V, N, MR, R6 to Xenon (with LET=53.7)** | | | | | | **Beam Bragg Peak at between Buffer and Substrate** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 473 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 30 | |
| 8/24/2005 | TAMU | 474 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 40 | |
| 8/24/2005 | TAMU | 475 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 50 | |
| 8/24/2005 | TAMU | 476 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 60 | |
| 8/24/2005 | TAMU | 477 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 70 | |
| 8/24/2005 | TAMU | 478 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 80 | |
| 8/24/2005 | TAMU | 479 | **Xe** | 55.2 | 1150 | 90 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C3 | 12 | -15 | 90 | Failed |
| **250V, N, MR, R6 to Xenon (with LET=50.0)** | | | | | | **Beam Bragg Peak at Middle of Buffer** | | | | | | **WL# ER54738** | | | **SEGR Evaluation** | | |
| 8/24/2005 | TAMU | 480 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 60 | |
| 8/24/2005 | TAMU | 481 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 70 | |
| 8/24/2005 | TAMU | 482 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 80 | |
| 8/24/2005 | TAMU | 483 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 90 | |
| 8/24/2005 | TAMU | 484 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 100 | |
| 8/24/2005 | TAMU | 485 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 110 | |
| 8/24/2005 | TAMU | 486 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 120 | |
| 8/24/2005 | TAMU | 487 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 130 | |
| 8/24/2005 | TAMU | 488 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 140 | |
| 8/24/2005 | TAMU | 489 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 150 | |
| 8/24/2005 | TAMU | 490 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 160 | |
| 8/24/2005 | TAMU | 491 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 170 | |
| 8/24/2005 | TAMU | 492 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 180 | |
| 8/24/2005 | TAMU | 493 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 190 | |
| 8/24/2005 | TAMU | 494 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 210 | |
| 8/24/2005 | TAMU | 495 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 230 | |
| 8/24/2005 | TAMU | 496 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 250 | |
| 8/24/2005 | TAMU | 497 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 255 | |
| 8/24/2005 | TAMU | 498 | **Xe** | 50.0 | 1623 | 129 | 1.00E+04 | 3.00E+05 | 0 | 1.5 | Air | IRH67264 | C4 | 13 | -15 | 265 | |

# Appendix B

# TAMU Cyclotron Institute

# Facility Beam Data & Graphs

International
IOR Rectifier

Cyclotron Institute Texas A&M University - Radiation Testing Report (V. Horvat 00/06/13)
File: IR0405 Compiled on 05/05/01 at 07:19:02

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | t00 | 11082 | 11:55 | Xe | 15 | 823 | 59 | 66 | 14400 | 301000 | 284 | 301000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.75 | 82 | 14 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 2 | t01 | 11082 | 12:01 | Xe | 15 | 823 | 59 | 66 | 14100 | 293000 | 277 | 293000 | 0.128 | 82 | OUT | 21 | 0 | 19 | 1.12 | 96 | 3 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 3 | t02 | 11082 | 12:02 | Xe | 15 | 823 | 59 | 66 | 13300 | 295000 | 279 | 295000 | 0.124 | 82 | OUT | 22 | 0 | 19 | 1.07 | 95 | 3 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 4 | t03 | 11082 | 12:03 | Xe | 15 | 823 | 59 | 66 | 13800 | 306000 | 290 | 306000 | 0.121 | 82 | OUT | 22 | 0 | 19 | 1.1 | 95 | 3 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 5 | t04 | 11082 | 12:05 | Xe | 15 | 823 | 59 | 66 | 14100 | 295000 | 279 | 295000 | 0.127 | 82 | OUT | 21 | 0 | 19 | 1.12 | 97 | 2 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 6 | t05 | 11082 | 12:05 | Xe | 15 | 823 | 59 | 66 | 14100 | 55400 | 52.4 | 55400 | 0.679 | 82 | OUT | 4 | 0 | 19 | 1.12 | 95 | 3 | 59 | 66 | irmosfet | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 7 | t06 | 11082 | 12:18 | Xe | 15 | 823 | 59 | 66 | 14200 | 300000 | 283 | 300000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.15 | 96 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 8 | t07 | 11082 | 12:19 | Xe | 15 | 823 | 59 | 66 | 14300 | 296000 | 279 | 296000 | 0.128 | 82 | OUT | 21 | 0 | 19 | 1.15 | 96 | 2 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 9 | t08 | 11082 | 12:19 | Xe | 15 | 823 | 59 | 66 | 14500 | 293000 | 277 | 293000 | 0.130 | 82 | OUT | 20 | 0 | 19 | 1.15 | 96 | 2 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 10 | t09 | 11082 | 12:23 | Xe | 15 | 823 | 59 | 66 | 14100 | 298000 | 282 | 298000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.15 | 95 | 3 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 11 | t0A | 11082 | 12:25 | Xe | 15 | 823 | 59 | 66 | 14000 | 295000 | 279 | 295000 | 0.127 | 82 | OUT | 21 | 0 | 19 | 1.15 | 96 | 3 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 12 | t0B | 11082 | 12:26 | Xe | 15 | 823 | 59 | 66 | 13700 | 295000 | 279 | 295000 | 0.125 | 82 | OUT | 22 | 0 | 19 | 1.15 | 95 | 3 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 13 | t0C | 11082 | 12:28 | Xe | 15 | 823 | 59 | 66 | 15500 | 303000 | 286 | 303000 | 0.130 | 82 | OUT | 19 | 0 | 19 | 1.32 | 95 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 14 | t0D | 11082 | 12:29 | Xe | 15 | 823 | 59 | 66 | 15500 | 296000 | 280 | 296000 | 0.133 | 82 | OUT | 19 | 0 | 19 | 1.32 | 96 | 3 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 15 | t0E | 11082 | 12:30 | Xe | 15 | 823 | 59 | 66 | 14900 | 307000 | 290 | 307000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.26 | 96 | 3 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 16 | t0F | 11082 | 12:31 | Xe | 15 | 823 | 59 | 66 | 14800 | 303000 | 286 | 303000 | 0.127 | 82 | OUT | 21 | 0 | 19 | 1.26 | 95 | 3 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 17 | t0G | 11082 | 12:32 | Xe | 15 | 823 | 59 | 66 | 14900 | 304000 | 287 | 304000 | 0.127 | 82 | OUT | 20 | 0 | 19 | 1.22 | 96 | 3 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 18 | t0H | 11082 | 12:33 | Xe | 15 | 823 | 59 | 66 | 14500 | 298000 | 282 | 298000 | 0.128 | 82 | OUT | 21 | 0 | 19 | 1.22 | 95 | 3 | 59 | 66 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 19 | t0I | 11082 | 12:35 | Xe | 15 | 823 | 59 | 66 | 14600 | 303000 | 286 | 303000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.22 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 20 | t0J | 11082 | 12:35 | Xe | 15 | 823 | 59 | 66 | 13300 | 301000 | 285 | 301000 | 0.121 | 82 | OUT | 23 | 0 | 19 | 1.22 | 96 | 3 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 21 | t0K | 11082 | 12:36 | Xe | 15 | 823 | 59 | 66 | 14700 | 304000 | 287 | 304000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.22 | 96 | 3 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 22 | t0L | 11082 | 12:42 | Xe | 15 | 823 | 59 | 66 | 14100 | 303000 | 287 | 303000 | 0.124 | 82 | OUT | 21 | 0 | 19 | 1.19 | 96 | 2 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 23 | t0M | 11082 | 12:43 | Xe | 15 | 823 | 59 | 66 | 13900 | 303000 | 287 | 303000 | 0.123 | 82 | OUT | 22 | 0 | 19 | 1.19 | 96 | 2 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 24 | t0N | 11082 | 12:44 | Xe | 15 | 823 | 59 | 66 | 13900 | 297000 | 280 | 297000 | 0.126 | 82 | OUT | 21 | 0 | 19 | 1.19 | 96 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 25 | t0O | 11082 | 13:37 | Xe | 15 | 823 | 59 | 66 | 13500 | 300000 | 284 | 300000 | 0.122 | 82 | OUT | 22 | 0 | 19 | 1.17 | 94 | 4 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 26 | t0P | 11082 | 13:38 | Xe | 15 | 823 | 59 | 66 | 12600 | 59000 | 55.8 | 59000 | 0.602 | 82 | OUT | 5 | 0 | 19 | 1.09 | 94 | 4 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 27 | t0Q | 11082 | 13:42 | Xe | 15 | 823 | 59 | 66 | 12400 | 301000 | 284 | 301000 | 0.117 | 82 | OUT | 24 | 0 | 19 | 1.07 | 94 | 3 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 28 | t0R | 11082 | 13:43 | Xe | 15 | 823 | 59 | 66 | 12500 | 302000 | 286 | 302000 | 0.117 | 82 | OUT | 24 | 0 | 19 | 1.07 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 29 | t0S | 11082 | 13:44 | Xe | 15 | 823 | 59 | 66 | 12300 | 297000 | 281 | 297000 | 0.118 | 82 | OUT | 24 | 0 | 19 | 1.05 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 30 | t0T | 11082 | 13:45 | Xe | 15 | 823 | 59 | 66 | 12400 | 296000 | 280 | 296000 | 0.119 | 82 | OUT | 24 | 0 | 19 | 1.05 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 31 | t0U | 11082 | 13:46 | Xe | 15 | 823 | 59 | 66 | 11400 | 170000 | 160 | 170000 | 0.199 | 82 | OUT | 15 | 0 | 19 | 0.99 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 32 | t0V | 11082 | 13:47 | Xe | 15 | 823 | 59 | 66 | 12300 | 300000 | 284 | 300000 | 0.117 | 82 | OUT | 24 | 0 | 19 | 1.03 | 95 | 3 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 33 | t0W | 11082 | 13:48 | Xe | 15 | 823 | 59 | 66 | 11800 | 303000 | 286 | 303000 | 0.114 | 82 | OUT | 26 | 0 | 19 | 1 | 95 | 3 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 34 | t0X | 11082 | 13:49 | Xe | 15 | 823 | 59 | 66 | 11800 | 172000 | 163 | 172000 | 0.200 | 82 | OUT | 15 | 0 | 19 | 1 | 95 | 3 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 35 | t0Y | 11082 | 13:50 | Xe | 15 | 823 | 59 | 66 | 11800 | 300000 | 284 | 300000 | 0.114 | 82 | OUT | 25 | 0 | 19 | 1 | 95 | 3 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 36 | t0Z | 11082 | 13:51 | Xe | 15 | 823 | 59 | 66 | 11500 | 300000 | 284 | 300000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 1 | 95 | 3 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 37 | t10 | 11082 | 13:52 | Xe | 15 | 823 | 59 | 66 | 11500 | 196000 | 185 | 196000 | 0.173 | 82 | OUT | 17 | 0 | 19 | 1 | 94 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 38 | t11 | 11082 | 13:55 | Xe | 15 | 823 | 59 | 66 | 12000 | 302000 | 285 | 302000 | 0.115 | 82 | OUT | 25 | 0 | 19 | 1.01 | 95 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 39 | t12 | 11082 | 13:59 | Xe | 15 | 823 | 59 | 66 | 11900 | 303000 | 286 | 303000 | 0.114 | 82 | OUT | 26 | 0 | 19 | 1 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 40 | t13 | 11082 | 14:00 | Xe | 15 | 823 | 59 | 66 | 11600 | 301000 | 285 | 301000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 0.98 | 96 | 3 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 41 | t14 | 11082 | 14:01 | Xe | 15 | 823 | 59 | 66 | 11700 | 303000 | 286 | 303000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 0.98 | 95 | 3 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 42 | t15 | 11082 | 14:02 | Xe | 15 | 823 | 59 | 66 | 11500 | 296000 | 280 | 296000 | 0.114 | 82 | OUT | 26 | 0 | 19 | 0.98 | 95 | 3 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 43 | t16 | 11082 | 14:08 | Xe | 15 | 823 | 59 | 66 | 10800 | 299000 | 283 | 299000 | 0.110 | 82 | OUT | 28 | 0 | 19 | 0.94 | 96 | 3 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 44 | t17 | 11082 | 14:09 | Xe | 15 | 823 | 59 | 66 | 10800 | 296000 | 280 | 296000 | 0.111 | 82 | OUT | 28 | 0 | 19 | 0.94 | 97 | 2 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 45 | t18 | 11082 | 14:09 | Xe | 15 | 823 | 59 | 66 | 10100 | 302000 | 285 | 302000 | 0.105 | 82 | OUT | 30 | 0 | 19 | 0.88 | 97 | 2 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 46 | t19 | 11082 | 14:11 | Xe | 15 | 823 | 59 | 66 | 10600 | 300000 | 284 | 300000 | 0.109 | 82 | OUT | 28 | 0 | 19 | 0.91 | 96 | 2 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 47 | t1A | 11082 | 14:12 | Xe | 15 | 823 | 59 | 66 | 10600 | 281000 | 266 | 281000 | 0.116 | 82 | OUT | 26 | 0 | 19 | 0.9 | 96 | 3 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 48 | t1B | 11082 | 14:15 | Xe | 15 | 823 | 59 | 66 | 11200 | 303000 | 286 | 303000 | 0.111 | 82 | OUT | 27 | 0 | 19 | 0.95 | 96 | 3 | 59 | 66 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 49 | t1C | 11082 | 14:16 | Xe | 15 | 823 | 59 | 66 | 10900 | 301000 | 284 | 301000 | 0.110 | 82 | OUT | 28 | 0 | 19 | 0.9 | 96 | 3 | 59 | 66 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 50 | t1D | 11082 | 14:17 | Xe | 15 | 823 | 59 | 66 | 10600 | 299000 | 282 | 299000 | 0.109 | 82 | OUT | 28 | 0 | 19 | 0.9 | 96 | 3 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 51 | t1E | 11082 | 14:19 | Xe | 15 | 823 | 59 | 66 | 10400 | 296000 | 279 | 296000 | 0.109 | 82 | OUT | 28 | 0 | 19 | 0.91 | 97 | 2 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 52 | t1F | 11082 | 14:20 | Xe | 15 | 823 | 59 | 66 | 10500 | 304000 | 288 | 304000 | 0.106 | 82 | OUT | 29 | 0 | 19 | 0.91 | 95 | 3 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 53 | t1G | 11082 | 14:21 | Xe | 15 | 823 | 59 | 66 | 9800 | 303000 | 286 | 303000 | 0.103 | 82 | OUT | 31 | 0 | 19 | 0.85 | 96 | 2 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 54 | t1H | 11082 | 15:15 | Xe | 15 | 823 | 59 | 66 | 8460 | 302000 | 286 | 302000 | 0.096 | 82 | OUT | 36 | 0 | 19 | 0.85 | 97 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 55 | t1I | 11082 | 15:16 | Xe | 15 | 823 | 59 | 66 | 8170 | 177000 | 167 | 177000 | 0.162 | 82 | OUT | 22 | 0 | 19 | 0.82 | 97 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 56 | t1J | 11082 | 15:21 | Xe | 15 | 823 | 59 | 66 | 7440 | 300000 | 284 | 300000 | 0.091 | 82 | OUT | 40 | 0 | 19 | 0.76 | 97 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 57 | t1K | 11082 | 15:24 | Xe | 15 | 823 | 59 | 66 | 10700 | 297000 | 280 | 296000 | 0.110 | 82 | OUT | 28 | 0 | 19 | 0.85 | 95 | 3 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 58 | t1L | 11082 | 15:25 | Xe | 15 | 823 | 59 | 66 | 10900 | 295000 | 279 | 295000 | 0.112 | 82 | OUT | 27 | 0 | 19 | 0.85 | 95 | 3 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 59 | t1M | 11082 | 15:26 | Xe | 15 | 823 | 59 | 66 | 10800 | 302000 | 286 | 302000 | 0.109 | 82 | OUT | 28 | 0 | 19 | 0.85 | 95 | 3 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 60 | t1N | 11082 | 15:29 | Xe | 15 | 823 | 59 | 66 | 10300 | 300000 | 284 | 300000 | 0.107 | 82 | OUT | 29 | 0 | 19 | 0.81 | 96 | 3 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 61 | t1O | 11082 | 15:33 | Xe | 15 | 823 | 59 | 66 | 9780 | 304000 | 287 | 304000 | 0.103 | 82 | OUT | 31 | 0 | 19 | 0.77 | 96 | 2 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 62 | t1P | 11082 | 15:34 | Xe | 15 | 823 | 59 | 66 | 9480 | 298000 | 281 | 297000 | 0.104 | 82 | OUT | 31 | 0 | 19 | 0.77 | 96 | 2 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 63 | t1Q | 11082 | 15:35 | Xe | 15 | 823 | 59 | 66 | 9000 | 58100 | 54.9 | 58100 | 0.517 | 82 | OUT | 6 | 0 | 19 | 0.7 | 95 | 2 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 64 | t1R | 11082 | 15:37 | Xe | 15 | 823 | 59 | 66 | 9740 | 302000 | 286 | 302000 | 0.103 | 82 | OUT | 31 | 0 | 19 | 0.77 | 95 | 2 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 65 | t1S | 11082 | 15:41 | Xe | 15 | 823 | 59 | 66 | 9240 | 299000 | 283 | 299000 | 0.102 | 82 | OUT | 32 | 0 | 19 | 0.77 | 97 | 1 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 66 | t1T | 11082 | 15:43 | Xe | 15 | 823 | 59 | 66 | 9490 | 296000 | 280 | 296000 | 0.104 | 82 | OUT | 31 | 0 | 19 | 0.79 | 96 | 2 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 67 | t1U | 11082 | 15:56 | Xe | 15 | 823 | 59 | 66 | 7160 | 299000 | 282 | 299000 | 0.090 | 82 | OUT | 42 | 0 | 19 | 0.63 | 98 | 1 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 68 | t1V | 11082 | 15:58 | Xe | 15 | 823 | 59 | 66 | 8040 | 301000 | 284 | 301000 | 0.094 | 82 | OUT | 37 | 0 | 19 | 0.7 | 98 | 1 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 69 | t1W | 11082 | 15:59 | Xe | 15 | 823 | 59 | 66 | 7540 | 298000 | 281 | 298000 | 0.092 | 82 | OUT | 39 | 0 | 19 | 0.65 | 99 | 1 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 70 | t1X | 11082 | 16:00 | Xe | 15 | 823 | 59 | 66 | 7220 | 139000 | 131 | 139000 | 0.193 | 82 | OUT | 19 | 0 | 19 | 0.63 | 98 | 1 | 59 | 66 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 71 | t1Y | 11082 | 16:06 | Xe | 15 | 823 | 59 | 66 | 7950 | 298000 | 281 | 298000 | 0.095 | 82 | OUT | 37 | 0 | 19 | 0.67 | 98 | 1 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 72 | t1Z | 11082 | 16:07 | Xe | 15 | 823 | 59 | 66 | 7700 | 303000 | 287 | 303000 | 0.092 | 82 | OUT | 39 | 0 | 19 | 0.68 | 98 | 0 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 73 | t20 | 11082 | 16:09 | Xe | 15 | 823 | 59 | 66 | 12400 | 299000 | 282 | 299000 | 0.118 | 82 | OUT | 24 | 0 | 19 | 0.76 | 99 | 1 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 74 | t21 | 11082 | 16:10 | Xe | 15 | 823 | 59 | 66 | 12700 | 302000 | 285 | 302000 | 0.118 | 82 | OUT | 24 | 0 | 19 | 0.78 | 99 | 0 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 75 | t22 | 11082 | 16:11 | Xe | 15 | 823 | 59 | 66 | 12100 | 177000 | 167 | 177000 | 0.197 | 82 | OUT | 15 | 0 | 19 | 0.74 | 99 | 1 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |

International
IOR Rectifier

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76 | t23 | 11082 | 16:12 | Xe | 15 | 823 | 59 | 66 | 11900 | 300000 | 283 | 300000 | 0.115 | 82 | OUT | 25 | 0 | 19 | 0.76 | 98 | 1 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 77 | t24 | 11082 | 16:13 | Xe | 15 | 823 | 59 | 66 | 12100 | 298000 | 282 | 298000 | 0.117 | 82 | OUT | 25 | 0 | 19 | 0.77 | 98 | 0 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 78 | t25 | 11082 | 16:14 | Xe | 15 | 823 | 59 | 66 | 11800 | 303000 | 287 | 303000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 0.76 | 98 | 0 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 79 | t26 | 11082 | 16:15 | Xe | 15 | 823 | 59 | 66 | 11300 | 300000 | 284 | 300000 | 0.112 | 82 | OUT | 27 | 0 | 19 | 0.76 | 99 | 1 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 80 | t27 | 11082 | 16:16 | Xe | 15 | 823 | 59 | 66 | 11700 | 303000 | 287 | 303000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 0.76 | 99 | 0 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 81 | t28 | 11082 | 16:21 | Xe | 15 | 823 | 59 | 66 | 11500 | 97200 | 91.9 | 97200 | 0.350 | 82 | OUT | 8 | 0 | 19 | 0.76 | 99 | 0 | 59 | 66 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 82 | t29 | 11082 | 16:22 | Xe | 15 | 823 | 59 | 66 | 10400 | 302000 | 285 | 302000 | 0.107 | 82 | OUT | 29 | 0 | 19 | 0.76 | 98 | 1 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 83 | t2A | 11082 | 16:23 | Xe | 15 | 823 | 59 | 66 | 10100 | 301000 | 284 | 301000 | 0.106 | 82 | OUT | 30 | 0 | 19 | 0.73 | 98 | 1 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 84 | t2B | 11082 | 16:25 | Xe | 15 | 823 | 59 | 66 | 9860 | 297000 | 280 | 297000 | 0.106 | 82 | OUT | 30 | 0 | 19 | 0.73 | 99 | 0 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 85 | t2C | 11082 | 16:26 | Xe | 15 | 823 | 59 | 66 | 9770 | 295000 | 279 | 295000 | 0.106 | 82 | OUT | 30 | 0 | 19 | 0.73 | 99 | 1 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 86 | t2D | 11082 | 16:31 | Xe | 15 | 823 | 59 | 66 | 10600 | 301000 | 285 | 301000 | 0.108 | 82 | OUT | 28 | 0 | 19 | 0.74 | 98 | 0 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 87 | t2E | 11082 | 16:32 | Xe | 15 | 823 | 59 | 66 | 10600 | 301000 | 284 | 301000 | 0.108 | 82 | OUT | 28 | 0 | 19 | 0.75 | 98 | 1 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 88 | t2F | 11082 | 18:09 | Xe | 15 | 823 | 59 | 66 | 10400 | 296000 | 279 | 296000 | 0.109 | 82 | OUT | 29 | 0 | 19 | 0.85 | 86 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 89 | t2G | 11082 | 18:10 | Xe | 15 | 823 | 59 | 66 | 10300 | 296000 | 280 | 296000 | 0.108 | 82 | OUT | 29 | 0 | 19 | 0.84 | 85 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 90 | t2H | 11082 | 18:11 | Xe | 15 | 823 | 59 | 66 | 10200 | 298000 | 282 | 298000 | 0.107 | 82 | OUT | 29 | 0 | 19 | 0.84 | 86 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 91 | t2I | 11082 | 18:12 | Xe | 15 | 823 | 59 | 66 | 9660 | 43100 | 40.8 | 43100 | 0.720 | 82 | OUT | 4 | 0 | 19 | 0.79 | 86 | 1 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 92 | t2J | 11082 | 18:13 | Xe | 15 | 823 | 59 | 66 | 9280 | 300000 | 283 | 300000 | 0.102 | 82 | OUT | 32 | 0 | 19 | 0.77 | 85 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 93 | t2K | 11082 | 18:14 | Xe | 15 | 823 | 59 | 66 | 9830 | 296000 | 280 | 296000 | 0.106 | 82 | OUT | 30 | 0 | 19 | 0.82 | 86 | 1 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 94 | t2L | 11082 | 18:16 | Xe | 15 | 823 | 59 | 66 | 9550 | 295000 | 279 | 295000 | 0.105 | 82 | OUT | 31 | 0 | 19 | 0.84 | 86 | 1 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 95 | t2M | 11082 | 18:19 | Xe | 15 | 823 | 59 | 66 | 10000 | 122000 | 116 | 122000 | 0.259 | 82 | OUT | 12 | 0 | 19 | 0.82 | 85 | 2 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 96 | t2N | 11082 | 18:20 | Xe | 15 | 823 | 59 | 66 | 10600 | 303000 | 286 | 303000 | 0.108 | 82 | OUT | 28 | 0 | 19 | 0.76 | 86 | 1 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 97 | t2O | 11082 | 18:21 | Xe | 15 | 823 | 59 | 66 | 11200 | 303000 | 286 | 303000 | 0.111 | 82 | OUT | 27 | 0 | 19 | 0.82 | 86 | 1 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 98 | t2P | 11082 | 18:22 | Xe | 15 | 823 | 59 | 66 | 11200 | 295000 | 279 | 295000 | 0.113 | 82 | OUT | 26 | 0 | 19 | 0.82 | 86 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 99 | t2Q | 11082 | 18:23 | Xe | 15 | 823 | 59 | 66 | 10300 | 297000 | 281 | 297000 | 0.108 | 82 | OUT | 29 | 0 | 19 | 0.81 | 85 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 100 | t2R | 11082 | 18:25 | Xe | 15 | 823 | 59 | 66 | 11300 | 302000 | 285 | 302000 | 0.111 | 82 | OUT | 27 | 0 | 19 | 0.81 | 86 | 1 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 101 | t2S | 11082 | 18:26 | Xe | 15 | 823 | 59 | 66 | 12100 | 297000 | 281 | 297000 | 0.117 | 82 | OUT | 24 | 0 | 19 | 0.89 | 86 | 1 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 102 | t2T | 11082 | 18:32 | Xe | 15 | 823 | 59 | 66 | 10900 | 297000 | 281 | 297000 | 0.111 | 82 | OUT | 27 | 0 | 19 | 0.81 | 86 | 1 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 103 | t2U | 11082 | 18:33 | Xe | 15 | 823 | 59 | 66 | 10700 | 300000 | 284 | 300000 | 0.109 | 82 | OUT | 28 | 0 | 19 | 0.81 | 85 | 2 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 104 | t2V | 11082 | 18:35 | Xe | 15 | 823 | 59 | 66 | 11000 | 305000 | 289 | 305000 | 0.108 | 82 | OUT | 28 | 0 | 19 | 0.83 | 85 | 2 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 105 | t2W | 11082 | 19:46 | Xe | 15 | 823 | 59 | 66 | 9810 | 301000 | 284 | 301000 | 0.104 | 82 | OUT | 31 | 0 | 19 | 0.68 | 86 | 1 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 106 | t2X | 11082 | 19:47 | Xe | 15 | 823 | 59 | 66 | 9800 | 302000 | 285 | 302000 | 0.104 | 82 | OUT | 31 | 0 | 19 | 0.68 | 86 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 107 | t2Y | 11082 | 19:48 | Xe | 15 | 823 | 59 | 66 | 9990 | 296000 | 280 | 296000 | 0.107 | 82 | OUT | 30 | 0 | 19 | 0.7 | 86 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 108 | t2Z | 11082 | 19:49 | Xe | 15 | 823 | 59 | 66 | 10600 | 285000 | 270 | 285000 | 0.114 | 82 | OUT | 27 | 0 | 19 | 0.75 | 86 | 2 | 59 | 66 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 109 | t30 | 11082 | 19:51 | Xe | 15 | 823 | 59 | 66 | 8970 | 299000 | 283 | 299000 | 0.100 | 82 | OUT | 33 | 0 | 19 | 0.63 | 86 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 110 | t31 | 11082 | 19:52 | Xe | 15 | 823 | 59 | 66 | 9980 | 302000 | 286 | 302000 | 0.104 | 82 | OUT | 30 | 0 | 19 | 0.7 | 86 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 111 | t32 | 11082 | 19:54 | Xe | 15 | 823 | 59 | 66 | 24400 | 300000 | 284 | 300000 | 0.164 | 82 | OUT | 12 | 0 | 19 | 0.78 | 87 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 112 | t33 | 11082 | 19:55 | Xe | 15 | 823 | 59 | 66 | 26500 | 294000 | 278 | 294000 | 0.175 | 82 | OUT | 11 | 0 | 19 | 0.83 | 88 | 1 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 113 | t34 | 11082 | 19:55 | Xe | 15 | 823 | 59 | 66 | 25600 | 291000 | 275 | 291000 | 0.174 | 82 | OUT | 11 | 0 | 19 | 0.81 | 88 | 2 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 114 | t35 | 11082 | 19:56 | Xe | 15 | 823 | 59 | 66 | 20100 | 289000 | 274 | 289000 | 0.155 | 82 | OUT | 14 | 0 | 19 | 0.74 | 87 | 1 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 115 | t36 | 11082 | 19:57 | Xe | 15 | 823 | 59 | 66 | 29400 | 8340 | 7.89 | 8340 | 6.500 | 82 | OUT | 0 | 0 | 19 | 0.9 | 88 | 1 | 59 | 66 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 116 | t37 | 11082 | 20:01 | Xe | 15 | 823 | 59 | 66 | 21500 | 311000 | 294 | 311000 | 0.149 | 82 | OUT | 14 | 0 | 19 | 0.79 | 87 | 2 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 117 | t38 | 11082 | 20:01 | Xe | 15 | 823 | 59 | 66 | 24900 | 311000 | 294 | 311000 | 0.161 | 82 | OUT | 12 | 0 | 19 | 0.93 | 88 | 1 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 118 | t39 | 11082 | 20:02 | Xe | 15 | 823 | 59 | 66 | 27000 | 277000 | 262 | 277000 | 0.188 | 82 | OUT | 10 | 0 | 19 | 0.85 | 87 | 1 | 59 | 66 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 119 | t3A | 11082 | 20:08 | Xe | 15 | 823 | 59 | 66 | 24600 | 311000 | 294 | 311000 | 0.159 | 82 | OUT | 13 | 0 | 19 | 0.77 | 87 | 2 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 120 | t3B | 11082 | 20:08 | Xe | 15 | 823 | 59 | 66 | 25700 | 301000 | 284 | 301000 | 0.168 | 82 | OUT | 12 | 0 | 19 | 0.79 | 87 | 1 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 121 | t3C | 11082 | 20:09 | Xe | 15 | 823 | 59 | 66 | 25400 | 312000 | 295 | 312000 | 0.162 | 82 | OUT | 12 | 0 | 19 | 0.79 | 88 | 2 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 122 | t3D | 11082 | 20:11 | Xe | 15 | 823 | 59 | 66 | 24100 | 294000 | 278 | 294000 | 0.167 | 82 | OUT | 12 | 0 | 19 | 0.73 | 87 | 2 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 123 | t3E | 11082 | 20:11 | Xe | 15 | 823 | 59 | 66 | 25200 | 103000 | 97.2 | 103000 | 0.488 | 82 | OUT | 4 | 0 | 19 | 0.76 | 87 | 2 | 59 | 66 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 124 | t3F | 11082 | 20:12 | Xe | 15 | 823 | 59 | 66 | 26800 | 304000 | 288 | 304000 | 0.170 | 82 | OUT | 11 | 0 | 19 | 0.8 | 88 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 125 | t3G | 11082 | 20:14 | Xe | 15 | 823 | 59 | 66 | 24400 | 307000 | 290 | 307000 | 0.161 | 82 | OUT | 13 | 0 | 19 | 0.75 | 88 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 126 | t3H | 11082 | 20:15 | Xe | 15 | 823 | 59 | 66 | 23900 | 295000 | 279 | 295000 | 0.166 | 82 | OUT | 12 | 0 | 19 | 0.74 | 87 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 127 | t3I | 11082 | 20:16 | Xe | 15 | 823 | 59 | 66 | 23600 | 57000 | 53.9 | 57000 | 0.852 | 82 | OUT | 2 | 0 | 19 | 0.73 | 88 | 2 | 59 | 66 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 128 | t3J | 11082 | 20:17 | Xe | 15 | 823 | 59 | 66 | 23600 | 304000 | 287 | 304000 | 0.160 | 82 | OUT | 13 | 0 | 19 | 0.72 | 88 | 2 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 129 | t3K | 11082 | 20:18 | Xe | 15 | 823 | 59 | 66 | 24400 | 303000 | 286 | 303000 | 0.163 | 82 | OUT | 12 | 0 | 19 | 0.74 | 88 | 2 | 59 | 66 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 130 | t3L | 11082 | 20:20 | Xe | 15 | 823 | 59 | 66 | 25300 | 295000 | 279 | 295000 | 0.170 | 82 | OUT | 12 | 0 | 19 | 0.74 | 88 | 2 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 131 | t3M | 11082 | 20:21 | Xe | 15 | 823 | 59 | 66 | 21600 | 299000 | 282 | 299000 | 0.156 | 82 | OUT | 14 | 0 | 19 | 0.66 | 89 | 2 | 59 | 66 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 132 | t3N | 11082 | 20:22 | Xe | 15 | 823 | 59 | 66 | 24600 | 302000 | 286 | 302000 | 0.164 | 82 | OUT | 12 | 0 | 19 | 0.72 | 88 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 133 | t3O | 11082 | 20:23 | Xe | 15 | 823 | 59 | 66 | 23400 | 308000 | 291 | 308000 | 0.157 | 82 | OUT | 13 | 0 | 19 | 0.68 | 89 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 134 | t3P | 11082 | 20:24 | Xe | 15 | 823 | 59 | 66 | 24200 | 304000 | 287 | 304000 | 0.162 | 82 | OUT | 13 | 0 | 19 | 0.7 | 88 | 3 | 59 | 66 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 135 | t3Q | 11082 | 20:25 | Xe | 15 | 823 | 59 | 66 | 23600 | 299000 | 283 | 299000 | 0.162 | 82 | OUT | 13 | 0 | 19 | 0.7 | 88 | 2 | 59 | 66 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 136 | t3R | 11082 | 20:29 | Xe | 15 | 823 | 59 | 66 | 22800 | 301000 | 284 | 301000 | 0.159 | 82 | OUT | 13 | 0 | 19 | 0.68 | 88 | 2 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 137 | t3S | 11082 | 20:30 | Xe | 15 | 823 | 59 | 66 | 23100 | 307000 | 291 | 307000 | 0.156 | 82 | OUT | 13 | 0 | 19 | 0.69 | 89 | 3 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 138 | t3T | 11082 | 20:30 | Xe | 15 | 823 | 59 | 66 | 25600 | 197000 | 186 | 197000 | 0.257 | 82 | OUT | 8 | 0 | 19 | 0.74 | 89 | 3 | 59 | 66 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 139 | t3U | 11082 | 20:31 | Xe | 15 | 823 | 59 | 66 | 25000 | 292000 | 276 | 292000 | 0.171 | 82 | OUT | 12 | 0 | 19 | 0.74 | 89 | 3 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 140 | t3V | 11082 | 20:32 | Xe | 15 | 823 | 59 | 66 | 20900 | 308000 | 291 | 308000 | 0.149 | 82 | OUT | 15 | 0 | 19 | 0.63 | 89 | 3 | 59 | 66 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 141 | t3W | 11082 | 20:33 | Xe | 15 | 823 | 59 | 66 | 20900 | 291000 | 275 | 291000 | 0.157 | 82 | OUT | 14 | 0 | 19 | 0.63 | 89 | 3 | 59 | 66 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 142 | t3X | 11082 | 20:34 | Xe | 15 | 823 | 59 | 66 | 20900 | 309000 | 292 | 309000 | 0.148 | 82 | OUT | 15 | 0 | 19 | 0.63 | 88 | 3 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 143 | t3Y | 11082 | 20:35 | Xe | 15 | 823 | 59 | 66 | 22100 | 292000 | 276 | 292000 | 0.161 | 82 | OUT | 13 | 0 | 19 | 0.64 | 89 | 3 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 144 | t3Z | 11082 | 20:36 | Xe | 15 | 823 | 59 | 66 | 22500 | 300000 | 284 | 300000 | 0.158 | 82 | OUT | 13 | 0 | 19 | 0.66 | 89 | 3 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 145 | t40 | 11082 | 20:46 | Xe | 15 | 823 | 59 | 66 | 23500 | 301000 | 285 | 301000 | 0.161 | 82 | OUT | 13 | 0 | 19 | 0.69 | 90 | 5 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 146 | t41 | 11082 | 20:47 | Xe | 15 | 823 | 59 | 66 | 24100 | 307000 | 290 | 307000 | 0.160 | 82 | OUT | 13 | 0 | 19 | 0.7 | 90 | 4 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 147 | t42 | 11082 | 20:48 | Xe | 15 | 823 | 59 | 66 | 22600 | 91900 | 86.9 | 91900 | 0.517 | 82 | OUT | 4 | 0 | 19 | 0.65 | 90 | 5 | 59 | 66 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 148 | t43 | 11082 | 20:49 | Xe | 15 | 823 | 59 | 66 | 21700 | 63200 | 59.7 | 63200 | 0.737 | 82 | OUT | 3 | 0 | 19 | 0.64 | 91 | 6 | 59 | 66 | Current | socket 1 | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 149 | t44 | 11082 | 20:50 | Xe | 15 | 823 | 59 | 66 | 21300 | 299000 | 283 | 299000 | 0.154 | 82 | OUT | 14 | 0 | 19 | 0.64 | 90 | 6 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 150 | t45 | 11082 | 20:50 | Xe | 15 | 823 | 59 | 66 | 18800 | 309000 | 292 | 309000 | 0.140 | 82 | OUT | 16 | 0 | 19 | 0.55 | 91 | 6 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 151 | t46 | 11082 | 20:51 | Xe | 15 | 823 | 59 | 66 | 19300 | 297000 | 281 | 297000 | 0.148 | 82 | OUT | 15 | 0 | 19 | 0.56 | 90 | 5 | 59 | 66 | Current | socket 1 | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 51.538 | 2 | 290 | 290 | 310 | 300 | 370 | 0 | Nolayers.lay | None. |
| 152 | t47 | 11082 | 23:26 | Ag | 15 | 1217 | 43 | 112 | 27000 | 302000 | 208 | 302000 | 0.172 | 40 | OUT | 11 | 0 | 18 | 0.64 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 153 | t48 | 11082 | 23:27 | Ag | 15 | 1217 | 43 | 112 | 26800 | 307000 | 212 | 307000 | 0.169 | 40 | OUT | 11 | 0 | 18 | 0.61 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 154 | t49 | 11082 | 23:28 | Ag | 15 | 1217 | 43 | 112 | 29600 | 307000 | 211 | 306000 | 0.178 | 40 | OUT | 10 | 0 | 18 | 0.66 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 155 | t4A | 11082 | 23:28 | Ag | 15 | 1217 | 43 | 112 | 27400 | 286000 | 197 | 286000 | 0.183 | 40 | OUT | 10 | 0 | 18 | 0.63 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 156 | t4B | 11082 | 23:29 | Ag | 15 | 1217 | 43 | 112 | 30000 | 306000 | 211 | 306000 | 0.179 | 40 | OUT | 10 | 0 | 18 | 0.66 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 157 | t4C | 11082 | 23:30 | Ag | 15 | 1217 | 43 | 112 | 27700 | 297000 | 204 | 297000 | 0.178 | 40 | OUT | 11 | 0 | 18 | 0.61 | 89 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 158 | t4D | 11082 | 23:31 | Ag | 15 | 1217 | 43 | 112 | 28500 | 304000 | 210 | 304000 | 0.175 | 40 | OUT | 11 | 0 | 18 | 0.62 | 90 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 159 | t4E | 11082 | 23:32 | Ag | 15 | 1217 | 43 | 112 | 26200 | 311000 | 214 | 311000 | 0.164 | 40 | OUT | 12 | 0 | 18 | 0.59 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 160 | t4F | 11082 | 23:33 | Ag | 15 | 1217 | 43 | 112 | 26800 | 307000 | 212 | 307000 | 0.168 | 40 | OUT | 11 | 0 | 18 | 0.59 | 91 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 161 | t4G | 11082 | 23:34 | Ag | 15 | 1217 | 43 | 112 | 25100 | 210000 | 145 | 210000 | 0.239 | 40 | OUT | 8 | 0 | 18 | 0.55 | 90 | 7 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 162 | t4H | 11082 | 23:34 | Ag | 15 | 1217 | 43 | 112 | 27200 | 306000 | 211 | 306000 | 0.170 | 40 | OUT | 11 | 0 | 18 | 0.6 | 91 | 6 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 163 | t4I | 11082 | 23:35 | Ag | 15 | 1217 | 43 | 112 | 26800 | 295000 | 203 | 295000 | 0.175 | 40 | OUT | 11 | 0 | 18 | 0.6 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 164 | t4J | 11082 | 23:36 | Ag | 15 | 1217 | 43 | 112 | 26900 | 308000 | 212 | 308000 | 0.168 | 40 | OUT | 11 | 0 | 18 | 0.6 | 91 | 6 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 165 | t4K | 11082 | 23:37 | Ag | 15 | 1217 | 43 | 112 | 26900 | 311000 | 214 | 311000 | 0.167 | 40 | OUT | 12 | 0 | 18 | 0.59 | 91 | 6 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 166 | t4L | 11082 | 23:37 | Ag | 15 | 1217 | 43 | 112 | 24800 | 310000 | 214 | 310000 | 0.160 | 40 | OUT | 13 | 0 | 18 | 0.54 | 90 | 6 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 167 | t4M | 11082 | 23:38 | Ag | 15 | 1217 | 43 | 112 | 25500 | 302000 | 208 | 302000 | 0.167 | 40 | OUT | 12 | 0 | 18 | 0.56 | 90 | 7 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 168 | t4N | 11082 | 23:38 | Ag | 15 | 1217 | 43 | 112 | 26100 | 311000 | 214 | 311000 | 0.165 | 40 | OUT | 12 | 0 | 18 | 0.58 | 89 | 7 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 169 | t4O | 11082 | 23:39 | Ag | 15 | 1217 | 43 | 112 | 26700 | 302000 | 208 | 302000 | 0.171 | 40 | OUT | 11 | 0 | 18 | 0.59 | 90 | 7 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 170 | t4P | 11082 | 23:39 | Ag | 15 | 1217 | 43 | 112 | 23000 | 309000 | 213 | 309000 | 0.155 | 40 | OUT | 13 | 0 | 18 | 0.51 | 89 | 7 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 171 | t4Q | 11082 | 23:40 | Ag | 15 | 1217 | 43 | 112 | 24100 | 147000 | 101 | 147000 | 0.335 | 40 | OUT | 6 | 0 | 18 | 0.54 | 90 | 7 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 172 | t4R | 11082 | 23:41 | Ag | 15 | 1217 | 43 | 112 | 24200 | 177000 | 122 | 177000 | 0.279 | 40 | OUT | 7 | 0 | 18 | 0.54 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 173 | t4S | 11082 | 23:41 | Ag | 15 | 1217 | 43 | 112 | 26300 | 288000 | 198 | 288000 | 0.178 | 40 | OUT | 11 | 0 | 18 | 0.58 | 90 | 7 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 174 | t4T | 11082 | 23:42 | Ag | 15 | 1217 | 43 | 112 | 26300 | 302000 | 208 | 302000 | 0.170 | 40 | OUT | 11 | 0 | 18 | 0.58 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 175 | t4U | 11082 | 23:43 | Ag | 15 | 1217 | 43 | 112 | 25800 | 141000 | 97 | 141000 | 0.361 | 40 | OUT | 5 | 0 | 18 | 0.58 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 176 | t4V | 11082 | 23:44 | Ag | 15 | 1217 | 43 | 112 | 36800 | 177000 | 122 | 177000 | 0.343 | 40 | OUT | 5 | 0 | 18 | 0.99 | 90 | 6 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 177 | t4W | 11082 | 23:45 | Ag | 15 | 1217 | 43 | 112 | 39200 | 305000 | 210 | 305000 | 0.205 | 40 | OUT | 8 | 0 | 18 | 0.99 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 178 | t4X | 37016 | 1:02 | Ag | 15 | 1217 | 43 | 112 | 25500 | 291000 | 200 | 291000 | 0.173 | 40 | OUT | 11 | 0 | 18 | 1.3 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 179 | t4Y | 37016 | 1:03 | Ag | 15 | 1217 | 43 | 112 | 24600 | 302000 | 208 | 302000 | 0.164 | 40 | OUT | 12 | 0 | 18 | 1.26 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 180 | t4Z | 37016 | 1:04 | Ag | 15 | 1217 | 43 | 112 | 25200 | 311000 | 214 | 311000 | 0.161 | 40 | OUT | 12 | 0 | 18 | 1.28 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 181 | t50 | 37016 | 1:04 | Ag | 15 | 1217 | 43 | 112 | 24400 | 291000 | 200 | 291000 | 0.170 | 40 | OUT | 12 | 0 | 18 | 1.28 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 182 | t51 | 37016 | 1:04 | Ag | 15 | 1217 | 43 | 112 | 24700 | 299000 | 206 | 299000 | 0.166 | 40 | OUT | 12 | 0 | 18 | 1.28 | 93 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 183 | t52 | 37016 | 1:05 | Ag | 15 | 1217 | 43 | 112 | 24400 | 289000 | 199 | 289000 | 0.171 | 40 | OUT | 12 | 0 | 18 | 1.29 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 184 | t53 | 37016 | 1:06 | Ag | 15 | 1217 | 43 | 112 | 24600 | 303000 | 209 | 303000 | 0.164 | 40 | OUT | 12 | 0 | 18 | 1.31 | 93 | 4 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 185 | t54 | 37016 | 1:07 | Ag | 15 | 1217 | 43 | 112 | 23600 | 305000 | 210 | 305000 | 0.160 | 40 | OUT | 13 | 0 | 18 | 1.24 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 186 | t55 | 37016 | 1:07 | Ag | 15 | 1217 | 43 | 112 | 23800 | 306000 | 211 | 306000 | 0.159 | 40 | OUT | 13 | 0 | 18 | 1.25 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 187 | t56 | 37016 | 1:08 | Ag | 15 | 1217 | 43 | 112 | 24600 | 302000 | 208 | 302000 | 0.164 | 40 | OUT | 12 | 0 | 18 | 1.25 | 90 | 7 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 188 | t57 | 37016 | 1:08 | Ag | 15 | 1217 | 43 | 112 | 23500 | 307000 | 211 | 307000 | 0.158 | 40 | OUT | 13 | 0 | 18 | 1.27 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 189 | t58 | 37016 | 1:09 | Ag | 15 | 1217 | 43 | 112 | 22300 | 266000 | 183 | 266000 | 0.178 | 40 | OUT | 12 | 0 | 18 | 1.23 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 190 | t59 | 37016 | 1:10 | Ag | 15 | 1217 | 43 | 112 | 23500 | 310000 | 213 | 310000 | 0.156 | 40 | OUT | 13 | 0 | 18 | 1.31 | 92 | 5 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 191 | t5A | 37016 | 1:11 | Ag | 15 | 1217 | 43 | 112 | 23300 | 297000 | 204 | 297000 | 0.163 | 40 | OUT | 13 | 0 | 18 | 1.27 | 91 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 192 | t5B | 37016 | 1:11 | Ag | 15 | 1217 | 43 | 112 | 23200 | 187000 | 129 | 187000 | 0.257 | 40 | OUT | 8 | 0 | 18 | 1.28 | 92 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 193 | t5C | 37016 | 1:12 | Ag | 15 | 1217 | 43 | 112 | 23200 | 289000 | 199 | 289000 | 0.166 | 40 | OUT | 12 | 0 | 18 | 1.28 | 92 | 5 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 194 | t5D | 37016 | 1:12 | Ag | 15 | 1217 | 43 | 112 | 23400 | 311000 | 214 | 311000 | 0.156 | 40 | OUT | 13 | 0 | 18 | 1.32 | 93 | 5 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 195 | t5E | 37016 | 1:13 | Ag | 15 | 1217 | 43 | 112 | 23300 | 295000 | 203 | 295000 | 0.164 | 40 | OUT | 13 | 0 | 18 | 1.32 | 93 | 5 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 196 | t5F | 37016 | 1:15 | Ag | 15 | 1217 | 43 | 112 | 22700 | 294000 | 203 | 294000 | 0.162 | 40 | OUT | 13 | 0 | 18 | 1.29 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 197 | t5G | 37016 | 1:15 | Ag | 15 | 1217 | 43 | 112 | 21900 | 297000 | 205 | 297000 | 0.157 | 40 | OUT | 14 | 0 | 18 | 1.26 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 198 | t5H | 37016 | 1:16 | Ag | 15 | 1217 | 43 | 112 | 22600 | 297000 | 205 | 297000 | 0.160 | 40 | OUT | 13 | 0 | 18 | 1.29 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 199 | t5I | 37016 | 1:16 | Ag | 15 | 1217 | 43 | 112 | 21700 | 294000 | 203 | 294000 | 0.158 | 40 | OUT | 14 | 0 | 18 | 1.25 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 200 | t5J | 37016 | 1:17 | Ag | 15 | 1217 | 43 | 112 | 22300 | 292000 | 201 | 292000 | 0.162 | 40 | OUT | 13 | 0 | 18 | 1.27 | 93 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 201 | t5K | 37016 | 1:17 | Ag | 15 | 1217 | 43 | 112 | 22600 | 305000 | 210 | 305000 | 0.156 | 40 | OUT | 13 | 0 | 18 | 1.29 | 91 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 202 | t5L | 37016 | 1:18 | Ag | 15 | 1217 | 43 | 112 | 22600 | 303000 | 208 | 302000 | 0.157 | 40 | OUT | 13 | 0 | 18 | 1.27 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 203 | t5M | 37016 | 1:18 | Ag | 15 | 1217 | 43 | 112 | 22200 | 305000 | 210 | 305000 | 0.155 | 40 | OUT | 14 | 0 | 18 | 1.27 | 94 | 4 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 204 | t5N | 37016 | 1:19 | Ag | 15 | 1217 | 43 | 112 | 22400 | 290000 | 200 | 290000 | 0.163 | 40 | OUT | 13 | 0 | 18 | 1.3 | 93 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 205 | t5O | 37016 | 1:19 | Ag | 15 | 1217 | 43 | 112 | 20900 | 305000 | 210 | 305000 | 0.150 | 40 | OUT | 15 | 0 | 18 | 1.28 | 93 | 4 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 206 | t5P | 37016 | 1:20 | Ag | 15 | 1217 | 43 | 112 | 21500 | 309000 | 213 | 309000 | 0.150 | 40 | OUT | 14 | 0 | 18 | 1.26 | 93 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 207 | t5Q | 37016 | 1:21 | Ag | 15 | 1217 | 43 | 112 | 20700 | 300000 | 206 | 300000 | 0.152 | 40 | OUT | 14 | 0 | 18 | 1.26 | 93 | 4 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 208 | t5R | 37016 | 1:21 | Ag | 15 | 1217 | 43 | 112 | 21100 | 302000 | 208 | 302000 | 0.152 | 40 | OUT | 14 | 0 | 18 | 1.29 | 94 | 4 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 209 | t5S | 37016 | 1:22 | Ag | 15 | 1217 | 43 | 112 | 20500 | 294000 | 203 | 294000 | 0.154 | 40 | OUT | 14 | 0 | 18 | 1.29 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 210 | t5T | 37016 | 1:23 | Ag | 15 | 1217 | 43 | 112 | 20700 | 147000 | 102 | 147000 | 0.308 | 40 | OUT | 7 | 0 | 18 | 1.27 | 91 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 211 | t5U | 37016 | 1:24 | Ag | 15 | 1217 | 43 | 112 | 20000 | 175000 | 121 | 175000 | 0.256 | 40 | OUT | 9 | 0 | 18 | 1.27 | 87 | 9 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 212 | t5V | 37016 | 1:25 | Ag | 15 | 1217 | 43 | 112 | 20100 | 304000 | 209 | 304000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.27 | 88 | 8 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 213 | t5W | 37016 | 1:26 | Ag | 15 | 1217 | 43 | 112 | 19700 | 290000 | 200 | 290000 | 0.153 | 40 | OUT | 15 | 0 | 18 | 1.27 | 88 | 8 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 214 | t5X | 37016 | 1:27 | Ag | 15 | 1217 | 43 | 112 | 18800 | 296000 | 204 | 296000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.25 | 92 | 5 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 215 | t5Y | 37016 | 1:28 | Ag | 15 | 1217 | 43 | 112 | 18600 | 293000 | 202 | 293000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.25 | 93 | 4 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 216 | t5Z | 37016 | 1:28 | Ag | 15 | 1217 | 43 | 112 | 19500 | 296000 | 204 | 296000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.3 | 93 | 4 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 217 | t60 | 37016 | 1:29 | Ag | 15 | 1217 | 43 | 112 | 20200 | 296000 | 204 | 296000 | 0.152 | 40 | OUT | 15 | 0 | 18 | 1.3 | 93 | 5 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 218 | t61 | 37016 | 1:30 | Ag | 15 | 1217 | 43 | 112 | 19800 | 302000 | 208 | 302000 | 0.147 | 40 | OUT | 15 | 0 | 18 | 1.32 | 94 | 4 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 219 | t62 | 37016 | 1:32 | Ag | 15 | 1217 | 43 | 112 | 20000 | 301000 | 208 | 301000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.32 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 220 | t63 | 37016 | 1:32 | Ag | 15 | 1217 | 43 | 112 | 18900 | 304000 | 209 | 304000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.29 | 95 | 3 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 221 | t64 | 37016 | 1:33 | Ag | 15 | 1217 | 43 | 112 | 18800 | 295000 | 203 | 295000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.29 | 94 | 4 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 222 | t65 | 37016 | 1:34 | Ag | 15 | 1217 | 43 | 112 | 18700 | 302000 | 208 | 302000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.31 | 93 | 4 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 223 | t66 | 37016 | 1:35 | Ag | 15 | 1217 | 43 | 112 | 19000 | 300000 | 207 | 300000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.31 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 224 | t67 | 37016 | 1:36 | Ag | 15 | 1217 | 43 | 112 | 19500 | 303000 | 209 | 303000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.3 | 94 | 4 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 225 | t68 | 37016 | 1:39 | Ag | 15 | 1217 | 43 | 112 | 19900 | 293000 | 202 | 293000 | 0.152 | 40 | OUT | 15 | 0 | 18 | 1.31 | 95 | 3 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 226 | t69 | 37016 | 1:40 | Ag | 15 | 1217 | 43 | 112 | 18600 | 297000 | 205 | 297000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.27 | 94 | 4 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 227 | t6A | 37016 | 1:41 | Ag | 15 | 1217 | 43 | 112 | 19200 | 303000 | 209 | 303000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.28 | 94 | 4 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 228 | t6B | 37016 | 1:41 | Ag | 15 | 1217 | 43 | 112 | 19500 | 292000 | 201 | 292000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.3 | 94 | 4 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 229 | t6C | 37016 | 1:42 | Ag | 15 | 1217 | 43 | 112 | 19400 | 76100 | 52.4 | 76100 | 0.579 | 40 | OUT | 4 | 0 | 18 | 1.3 | 89 | 8 | 43 | 112 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 230 | t6D | 37016 | 1:43 | Ag | 15 | 1217 | 43 | 112 | 18500 | 307000 | 212 | 307000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.3 | 93 | 5 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 231 | t6E | 37016 | 1:43 | Ag | 15 | 1217 | 43 | 112 | 18700 | 297000 | 205 | 297000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.28 | 91 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 232 | t6F | 37016 | 1:44 | Ag | 15 | 1217 | 43 | 112 | 18700 | 260000 | 179 | 260000 | 0.166 | 40 | OUT | 14 | 0 | 18 | 1.28 | 92 | 5 | 43 | 112 | Current | Current | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 233 | t6G | 37016 | 2:20 | Ag | 15 | 1217 | 43 | 112 | 15600 | 300000 | 207 | 300000 | 0.132 | 40 | OUT | 19 | 0 | 18 | 1.24 | 90 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 234 | t6H | 37016 | 2:21 | Ag | 15 | 1217 | 43 | 112 | 15400 | 303000 | 209 | 303000 | 0.129 | 40 | OUT | 20 | 0 | 18 | 1.26 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 235 | t6I | 37016 | 2:21 | Ag | 15 | 1217 | 43 | 112 | 15900 | 296000 | 204 | 296000 | 0.135 | 40 | OUT | 19 | 0 | 18 | 1.27 | 93 | 4 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 236 | t6J | 37016 | 2:22 | Ag | 15 | 1217 | 43 | 112 | 15600 | 309000 | 213 | 309000 | 0.128 | 40 | OUT | 20 | 0 | 18 | 1.25 | 93 | 4 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 237 | t6K | 37016 | 2:23 | Ag | 15 | 1217 | 43 | 112 | 15200 | 110000 | 76.1 | 110000 | 0.353 | 40 | OUT | 7 | 0 | 18 | 1.25 | 91 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 238 | t6L | 37016 | 2:24 | Ag | 15 | 1217 | 43 | 112 | 14500 | 306000 | 211 | 306000 | 0.124 | 40 | OUT | 21 | 0 | 18 | 1.25 | 93 | 5 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 239 | t6M | 37016 | 2:25 | Ag | 15 | 1217 | 43 | 112 | 14600 | 301000 | 207 | 301000 | 0.127 | 40 | OUT | 21 | 0 | 18 | 1.24 | 94 | 4 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 240 | t6N | 37016 | 2:25 | Ag | 15 | 1217 | 43 | 112 | 14700 | 302000 | 208 | 302000 | 0.127 | 40 | OUT | 21 | 0 | 18 | 1.25 | 93 | 4 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 241 | t6O | 37016 | 2:26 | Ag | 15 | 1217 | 43 | 112 | 14900 | 297000 | 205 | 297000 | 0.130 | 40 | OUT | 20 | 0 | 18 | 1.25 | 93 | 4 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 242 | t6P | 37016 | 2:27 | Ag | 15 | 1217 | 43 | 112 | 14800 | 294000 | 202 | 294000 | 0.131 | 40 | OUT | 20 | 0 | 18 | 1.24 | 94 | 4 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 243 | t6Q | 37016 | 2:29 | Ag | 15 | 1217 | 43 | 112 | 14500 | 300000 | 207 | 300000 | 0.127 | 40 | OUT | 21 | 0 | 18 | 1.25 | 93 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 244 | t6R | 37016 | 2:30 | Ag | 15 | 1217 | 43 | 112 | 14900 | 253000 | 174 | 253000 | 0.153 | 40 | OUT | 17 | 0 | 18 | 1.27 | 92 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 245 | t6S | 37016 | 2:31 | Ag | 15 | 1217 | 43 | 112 | 14800 | 296000 | 204 | 296000 | 0.130 | 40 | OUT | 20 | 0 | 18 | 1.27 | 94 | 3 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 246 | t6T | 37016 | 2:32 | Ag | 15 | 1217 | 43 | 112 | 14800 | 300000 | 207 | 300000 | 0.128 | 40 | OUT | 20 | 0 | 18 | 1.27 | 93 | 4 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 247 | t6U | 37016 | 2:33 | Ag | 15 | 1217 | 43 | 112 | 14500 | 296000 | 204 | 296000 | 0.128 | 40 | OUT | 20 | 0 | 18 | 1.25 | 93 | 4 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 248 | t6V | 37016 | 2:34 | Ag | 15 | 1217 | 43 | 112 | 14000 | 293000 | 202 | 293000 | 0.128 | 40 | OUT | 21 | 0 | 18 | 1.28 | 93 | 5 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 249 | t6W | 37016 | 2:35 | Ag | 15 | 1217 | 43 | 112 | 14100 | 71700 | 49.4 | 71700 | 0.525 | 40 | OUT | 5 | 0 | 18 | 1.28 | 92 | 5 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 250 | t6X | 37016 | 2:37 | Ag | 15 | 1217 | 43 | 112 | 14000 | 301000 | 207 | 301000 | 0.125 | 40 | OUT | 21 | 0 | 18 | 1.28 | 94 | 4 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 251 | t6Y | 37016 | 2:38 | Ag | 15 | 1217 | 43 | 112 | 13900 | 301000 | 207 | 301000 | 0.124 | 40 | OUT | 22 | 0 | 18 | 1.27 | 94 | 4 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 252 | t6Z | 37016 | 2:40 | Ag | 15 | 1217 | 43 | 112 | 13700 | 304000 | 209 | 304000 | 0.122 | 40 | OUT | 22 | 0 | 18 | 1.27 | 93 | 4 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 253 | t70 | 37016 | 2:45 | Ag | 15 | 1217 | 43 | 112 | 20800 | 291000 | 200 | 291000 | 0.157 | 40 | OUT | 14 | 0 | 18 | 1.31 | 95 | 3 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 254 | t71 | 37016 | 2:46 | Ag | 15 | 1217 | 43 | 112 | 20600 | 307000 | 211 | 307000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.3 | 95 | 3 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 255 | t72 | 37016 | 2:47 | Ag | 15 | 1217 | 43 | 112 | 20000 | 290000 | 200 | 290000 | 0.154 | 40 | OUT | 15 | 0 | 18 | 1.3 | 94 | 3 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 256 | t73 | 37016 | 2:48 | Ag | 15 | 1217 | 43 | 112 | 17800 | 295000 | 203 | 295000 | 0.143 | 40 | OUT | 17 | 0 | 18 | 1.32 | 94 | 3 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 257 | t74 | 37016 | 2:49 | Ag | 15 | 1217 | 43 | 112 | 20400 | 301000 | 208 | 301000 | 0.150 | 40 | OUT | 15 | 0 | 18 | 1.32 | 94 | 3 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 258 | t75 | 37016 | 2:49 | Ag | 15 | 1217 | 43 | 112 | 20900 | 299000 | 206 | 299000 | 0.153 | 40 | OUT | 14 | 0 | 18 | 1.34 | 94 | 3 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 259 | t76 | 37016 | 2:51 | Ag | 15 | 1217 | 43 | 112 | 20600 | 297000 | 204 | 297000 | 0.153 | 40 | OUT | 14 | 0 | 18 | 1.34 | 95 | 3 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 260 | t77 | 37016 | 2:51 | Ag | 15 | 1217 | 43 | 112 | 20000 | 296000 | 204 | 296000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.3 | 94 | 3 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 261 | t78 | 37016 | 2:53 | Ag | 15 | 1217 | 43 | 112 | 20300 | 292000 | 201 | 292000 | 0.154 | 40 | OUT | 14 | 0 | 18 | 1.3 | 94 | 4 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 262 | t79 | 37016 | 2:53 | Ag | 15 | 1217 | 43 | 112 | 20700 | 308000 | 212 | 308000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.34 | 94 | 4 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 263 | t7A | 37016 | 2:54 | Ag | 15 | 1217 | 43 | 112 | 20400 | 302000 | 208 | 302000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.34 | 94 | 3 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 264 | t7B | 37016 | 2:58 | Ag | 15 | 1217 | 43 | 112 | 19800 | 308000 | 212 | 308000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.33 | 94 | 3 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 265 | t7C | 37016 | 3:00 | Ag | 15 | 1217 | 43 | 112 | 20300 | 304000 | 209 | 304000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.33 | 93 | 4 | 43 | 112 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 266 | t7D | 37016 | 3:01 | Ag | 15 | 1217 | 43 | 112 | 20300 | 292000 | 201 | 292000 | 0.154 | 40 | OUT | 14 | 0 | 18 | 1.33 | 92 | 4 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 267 | t7E | 37016 | 3:01 | Ag | 15 | 1217 | 43 | 112 | 20600 | 301000 | 208 | 301000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.32 | 93 | 4 | 43 | 112 | Current | Current | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 268 | t7F | 37016 | 4:11 | Ag | 15 | 1217 | 43 | 112 | 20800 | 292000 | 201 | 292000 | 0.156 | 40 | OUT | 14 | 0 | 18 | 1.37 | 91 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 269 | t7G | 37016 | 4:11 | Ag | 15 | 1217 | 43 | 112 | 21000 | 297000 | 205 | 297000 | 0.154 | 40 | OUT | 14 | 0 | 18 | 1.36 | 91 | 5 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 270 | t7H | 37016 | 4:13 | Ag | 15 | 1217 | 43 | 112 | 21000 | 295000 | 203 | 295000 | 0.155 | 40 | OUT | 14 | 0 | 18 | 1.36 | 91 | 5 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 271 | t7I | 37016 | 4:13 | Ag | 15 | 1217 | 43 | 112 | 20200 | 302000 | 208 | 302000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.33 | 91 | 5 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 272 | t7J | 37016 | 4:14 | Ag | 15 | 1217 | 43 | 112 | 20400 | 290000 | 200 | 290000 | 0.156 | 40 | OUT | 14 | 0 | 18 | 1.36 | 92 | 4 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 273 | t7K | 37016 | 4:15 | Ag | 15 | 1217 | 43 | 112 | 20000 | 81500 | 56.1 | 81500 | 0.548 | 40 | OUT | 4 | 0 | 18 | 1.34 | 93 | 3 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 274 | t7L | 37016 | 4:16 | Ag | 15 | 1217 | 43 | 112 | 20000 | 301000 | 207 | 301000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.34 | 91 | 5 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 275 | t7M | 37016 | 4:17 | Ag | 15 | 1217 | 43 | 112 | 17700 | 304000 | 209 | 304000 | 0.139 | 40 | OUT | 17 | 0 | 18 | 1.38 | 92 | 4 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 276 | t7N | 37016 | 4:19 | Ag | 15 | 1217 | 43 | 112 | 19800 | 303000 | 209 | 303000 | 0.147 | 40 | OUT | 15 | 0 | 18 | 1.38 | 90 | 6 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 277 | t7O | 37016 | 4:20 | Ag | 15 | 1217 | 43 | 112 | 19900 | 310000 | 213 | 310000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.36 | 90 | 5 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 278 | t7P | 37016 | 4:21 | Ag | 15 | 1217 | 43 | 112 | 19800 | 285000 | 196 | 285000 | 0.156 | 40 | OUT | 14 | 0 | 18 | 1.36 | 91 | 5 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 279 | t7Q | 37016 | 4:22 | Ag | 15 | 1217 | 43 | 112 | 19400 | 307000 | 211 | 307000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.36 | 91 | 5 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 280 | t7R | 37016 | 4:24 | Ag | 15 | 1217 | 43 | 112 | 19900 | 295000 | 203 | 295000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.38 | 90 | 5 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 281 | t7S | 37016 | 4:25 | Ag | 15 | 1217 | 43 | 112 | 19800 | 299000 | 206 | 299000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.34 | 90 | 5 | 43 | 112 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 282 | t7T | 37016 | 4:27 | Ag | 15 | 1217 | 43 | 112 | 19300 | 296000 | 204 | 296000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.34 | 91 | 5 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 283 | t7U | 37016 | 4:27 | Ag | 15 | 1217 | 43 | 112 | 20100 | 146000 | 101 | 146000 | 0.307 | 40 | OUT | 7 | 0 | 18 | 1.37 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 284 | t7V | 37016 | 4:28 | Ag | 15 | 1217 | 43 | 112 | 20000 | 299000 | 206 | 299000 | 0.150 | 40 | OUT | 15 | 0 | 18 | 1.37 | 90 | 5 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 285 | t7W | 37016 | 4:29 | Ag | 15 | 1217 | 43 | 112 | 19700 | 293000 | 202 | 293000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.37 | 89 | 6 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 286 | t7X | 37016 | 4:30 | Ag | 15 | 1217 | 43 | 112 | 20100 | 309000 | 213 | 309000 | 0.145 | 40 | OUT | 15 | 0 | 18 | 1.36 | 91 | 5 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 287 | t7Y | 37016 | 4:30 | Ag | 15 | 1217 | 43 | 112 | 19400 | 301000 | 208 | 301000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.33 | 90 | 5 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 288 | t7Z | 37016 | 4:31 | Ag | 15 | 1217 | 43 | 112 | 19700 | 305000 | 210 | 305000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.33 | 91 | 5 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 289 | t80 | 37016 | 4:32 | Ag | 15 | 1217 | 43 | 112 | 20300 | 125000 | 85.9 | 125000 | 0.361 | 40 | OUT | 6 | 0 | 18 | 1.36 | 90 | 5 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 290 | t81 | 37016 | 4:33 | Ag | 15 | 1217 | 43 | 112 | 19400 | 240000 | 166 | 240000 | 0.183 | 40 | OUT | 12 | 0 | 18 | 1.35 | 91 | 5 | 43 | 112 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 291 | t82 | 37016 | 4:35 | Ag | 15 | 1217 | 43 | 112 | 20500 | 310000 | 214 | 310000 | 0.146 | 40 | OUT | 15 | 0 | 18 | 1.37 | 90 | 5 | 43 | 112 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 292 | t83 | 37016 | 4:36 | Ag | 15 | 1217 | 43 | 112 | 20700 | 293000 | 202 | 292000 | 0.156 | 40 | OUT | 14 | 0 | 18 | 1.38 | 90 | 5 | 43 | 112 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 293 | t84 | 37016 | 4:37 | Ag | 15 | 1217 | 43 | 112 | 20500 | 291000 | 200 | 291000 | 0.155 | 40 | OUT | 14 | 0 | 18 | 1.38 | 90 | 5 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 294 | t85 | 37016 | 4:38 | Ag | 15 | 1217 | 43 | 112 | 20100 | 293000 | 202 | 293000 | 0.153 | 40 | OUT | 15 | 0 | 18 | 1.35 | 90 | 5 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 295 | t86 | 37016 | 5:05 | Ag | 15 | 1217 | 43 | 112 | 18600 | 48000 | 33 | 48000 | 0.898 | 40 | OUT | 3 | 0 | 18 | 1.3 | 89 | 6 | 43 | 112 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 296 | t87 | 37016 | 5:06 | Ag | 15 | 1217 | 43 | 112 | 18900 | 307000 | 212 | 307000 | 0.141 | 40 | OUT | 16 | 0 | 18 | 1.32 | 89 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 297 | t88 | 37016 | 5:06 | Ag | 15 | 1217 | 43 | 112 | 18900 | 301000 | 208 | 301000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 7 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 298 | t89 | 37016 | 5:07 | Ag | 15 | 1217 | 43 | 112 | 19100 | 304000 | 209 | 304000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.31 | 88 | 7 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 299 | t8A | 37016 | 5:07 | Ag | 15 | 1217 | 43 | 112 | 17900 | 308000 | 212 | 308000 | 0.137 | 40 | OUT | 17 | 0 | 18 | 1.3 | 90 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 300 | t8B | 37016 | 5:08 | Ag | 15 | 1217 | 43 | 112 | 18300 | 304000 | 210 | 304000 | 0.141 | 40 | OUT | 17 | 0 | 18 | 1.33 | 90 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 301 | t8C | 37016 | 5:09 | Ag | 15 | 1217 | 43 | 112 | 18500 | 292000 | 201 | 292000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.34 | 89 | 7 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 302 | t8D | 37016 | 5:09 | Ag | 15 | 1217 | 43 | 112 | 18800 | 309000 | 213 | 309000 | 0.140 | 40 | OUT | 16 | 0 | 18 | 1.34 | 89 | 6 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 303 | t8E | 37016 | 5:10 | Ag | 15 | 1217 | 43 | 112 | 18600 | 292000 | 201 | 292000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.33 | 91 | 5 | 43 | 112 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 304 | t8F | 37016 | 5:11 | Ag | 15 | 1217 | 43 | 112 | 18700 | 304000 | 209 | 304000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 6 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 305 | t8G | 37016 | 5:11 | Ag | 15 | 1217 | 43 | 112 | 18800 | 307000 | 212 | 307000 | 0.141 | 40 | OUT | 16 | 0 | 18 | 1.32 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 306 | t8H | 37016 | 5:12 | Ag | 15 | 1217 | 43 | 112 | 18600 | 302000 | 208 | 302000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.32 | 90 | 6 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 307 | t8I | 37016 | 5:12 | Ag | 15 | 1217 | 43 | 112 | 18700 | 304000 | 210 | 304000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 6 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 308 | t8J | 37016 | 5:13 | Ag | 15 | 1217 | 43 | 112 | 19000 | 34800 | 24 | 34800 | 1.250 | 40 | OUT | 2 | 0 | 18 | 1.33 | 90 | 5 | 43 | 112 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |

International
IOR Rectifier

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 309 | t8K | 37016 | 5:13 | Ag | 15 | 1217 | 43 | 112 | 19100 | 293000 | 202 | 293000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.33 | 90 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 310 | t8L | 37016 | 5:14 | Ag | 15 | 1217 | 43 | 112 | 19400 | 292000 | 201 | 292000 | 0.151 | 40 | OUT | 15 | 0 | 18 | 1.33 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 311 | t8M | 37016 | 5:15 | Ag | 15 | 1217 | 43 | 112 | 19200 | 297000 | 205 | 297000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.3 | 88 | 7 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 312 | t8N | 37016 | 5:15 | Ag | 15 | 1217 | 43 | 112 | 19100 | 301000 | 208 | 301000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.3 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 313 | t8O | 37016 | 5:16 | Ag | 15 | 1217 | 43 | 112 | 19100 | 306000 | 211 | 306000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 314 | t8P | 37016 | 5:16 | Ag | 15 | 1217 | 43 | 112 | 19300 | 303000 | 209 | 303000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 315 | t8Q | 37016 | 5:17 | Ag | 15 | 1217 | 43 | 112 | 19400 | 306000 | 211 | 306000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 316 | t8R | 37016 | 5:17 | Ag | 15 | 1217 | 43 | 112 | 19700 | 308000 | 212 | 308000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.32 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 317 | t8S | 37016 | 5:18 | Ag | 15 | 1217 | 43 | 112 | 19200 | 301000 | 207 | 301000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.32 | 89 | 7 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 318 | t8T | 37016 | 5:18 | Ag | 15 | 1217 | 43 | 112 | 18500 | 308000 | 212 | 308000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.3 | 90 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 319 | t8U | 37016 | 5:19 | Ag | 15 | 1217 | 43 | 112 | 18400 | 304000 | 209 | 304000 | 0.141 | 40 | OUT | 17 | 0 | 18 | 1.3 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 320 | t8V | 37016 | 5:19 | Ag | 15 | 1217 | 43 | 112 | 18400 | 298000 | 205 | 298000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.29 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 321 | t8W | 37016 | 5:20 | Ag | 15 | 1217 | 43 | 112 | 19200 | 308000 | 212 | 308000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 322 | t8X | 37016 | 5:21 | Ag | 15 | 1217 | 43 | 112 | 18900 | 292000 | 201 | 292000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.31 | 90 | 6 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 323 | t8Y | 37016 | 5:21 | Ag | 15 | 1217 | 43 | 112 | 18800 | 294000 | 203 | 294000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 6 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 324 | t8Z | 37016 | 5:22 | Ag | 15 | 1217 | 43 | 112 | 19400 | 301000 | 207 | 301000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.34 | 88 | 7 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 325 | t90 | 37016 | 5:22 | Ag | 15 | 1217 | 43 | 112 | 18500 | 298000 | 206 | 298000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.29 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 326 | t91 | 37016 | 5:23 | Ag | 15 | 1217 | 43 | 112 | 18100 | 53500 | 36.9 | 53500 | 0.796 | 40 | OUT | 3 | 0 | 18 | 1.29 | 90 | 6 | 43 | 112 | Current | Current | 4.154 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 327 | t92 | 37016 | 5:24 | Ag | 15 | 1217 | 43 | 112 | 19100 | 300000 | 206 | 300000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.31 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 328 | t93 | 37016 | 5:25 | Ag | 15 | 1217 | 43 | 112 | 19600 | 300000 | 207 | 300000 | 0.148 | 40 | OUT | 15 | 0 | 18 | 1.31 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 329 | t94 | 37016 | 5:25 | Ag | 15 | 1217 | 43 | 112 | 19000 | 295000 | 203 | 295000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.29 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 330 | t95 | 37016 | 5:26 | Ag | 15 | 1217 | 43 | 112 | 19200 | 305000 | 210 | 305000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.29 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 331 | t96 | 37016 | 5:26 | Ag | 15 | 1217 | 43 | 112 | 18900 | 293000 | 202 | 293000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.3 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 332 | t97 | 37016 | 5:27 | Ag | 15 | 1217 | 43 | 112 | 19000 | 297000 | 205 | 297000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.3 | 89 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 333 | t98 | 37016 | 5:27 | Ag | 15 | 1217 | 43 | 112 | 18700 | 295000 | 203 | 295000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.29 | 90 | 6 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 334 | t99 | 37016 | 5:28 | Ag | 15 | 1217 | 43 | 112 | 18300 | 294000 | 203 | 294000 | 0.145 | 40 | OUT | 16 | 0 | 18 | 1.3 | 89 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 335 | t9A | 37016 | 5:28 | Ag | 15 | 1217 | 43 | 112 | 19000 | 103000 | 70.9 | 103000 | 0.424 | 40 | OUT | 5 | 0 | 18 | 1.32 | 89 | 7 | 43 | 112 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 336 | t9B | 37016 | 5:29 | Ag | 15 | 1217 | 43 | 112 | 19200 | 293000 | 202 | 293000 | 0.149 | 40 | OUT | 15 | 0 | 18 | 1.3 | 89 | 7 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 337 | t9C | 37016 | 5:30 | Ag | 15 | 1217 | 43 | 112 | 18800 | 296000 | 204 | 296000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 7 | 43 | 112 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 338 | t9D | 37016 | 5:35 | Ag | 15 | 1217 | 43 | 112 | 18400 | 307000 | 212 | 307000 | 0.139 | 40 | OUT | 17 | 0 | 18 | 1.31 | 88 | 7 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 339 | t9E | 37016 | 5:35 | Ag | 15 | 1217 | 43 | 112 | 18000 | 42300 | 29.1 | 42300 | 1.000 | 40 | OUT | 2 | 0 | 18 | 1.31 | 88 | 7 | 43 | 112 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 340 | t9F | 37016 | 5:36 | Ag | 15 | 1217 | 43 | 112 | 18300 | 309000 | 213 | 309000 | 0.138 | 40 | OUT | 17 | 0 | 18 | 1.31 | 89 | 7 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 341 | t9G | 37016 | 5:37 | Ag | 15 | 1217 | 43 | 112 | 17600 | 294000 | 202 | 294000 | 0.143 | 40 | OUT | 17 | 0 | 18 | 1.31 | 91 | 5 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 342 | t9H | 37016 | 5:37 | Ag | 15 | 1217 | 43 | 112 | 18800 | 292000 | 201 | 292000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.36 | 89 | 7 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 343 | t9I | 37016 | 5:38 | Ag | 15 | 1217 | 43 | 112 | 18300 | 298000 | 206 | 298000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 6 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 344 | t9J | 37016 | 5:38 | Ag | 15 | 1217 | 43 | 112 | 18600 | 302000 | 208 | 302000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.33 | 90 | 6 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 345 | t9K | 37016 | 5:39 | Ag | 15 | 1217 | 43 | 112 | 18500 | 291000 | 201 | 291000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 7 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 346 | t9L | 37016 | 5:39 | Ag | 15 | 1217 | 43 | 112 | 17700 | 298000 | 205 | 298000 | 0.141 | 40 | OUT | 17 | 0 | 18 | 1.31 | 90 | 6 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 347 | t9M | 37016 | 5:40 | Ag | 15 | 1217 | 43 | 112 | 16600 | 301000 | 208 | 301000 | 0.135 | 40 | OUT | 18 | 0 | 18 | 1.29 | 90 | 6 | 43 | 112 | Current | Current | 2.418 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 348 | t9N | 37016 | 5:41 | Ag | 15 | 1217 | 43 | 112 | 17500 | 298000 | 205 | 298000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.29 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 349 | t9O | 37016 | 5:41 | Ag | 15 | 1217 | 43 | 112 | 18000 | 299000 | 206 | 299000 | 0.142 | 40 | OUT | 17 | 0 | 18 | 1.3 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 350 | t9P | 37016 | 5:42 | Ag | 15 | 1217 | 43 | 112 | 18100 | 295000 | 203 | 295000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 351 | t9Q | 37016 | 5:42 | Ag | 15 | 1217 | 43 | 112 | 18000 | 295000 | 203 | 295000 | 0.144 | 40 | OUT | 16 | 0 | 18 | 1.31 | 88 | 8 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 352 | t9R | 37016 | 5:43 | Ag | 15 | 1217 | 43 | 112 | 18300 | 292000 | 201 | 292000 | 0.147 | 40 | OUT | 16 | 0 | 18 | 1.34 | 88 | 8 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 353 | t9S | 37016 | 5:43 | Ag | 15 | 1217 | 43 | 112 | 18500 | 309000 | 213 | 309000 | 0.139 | 40 | OUT | 17 | 0 | 18 | 1.34 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 354 | t9T | 37016 | 5:43 | Ag | 15 | 1217 | 43 | 112 | 18600 | 307000 | 211 | 307000 | 0.141 | 40 | OUT | 16 | 0 | 18 | 1.33 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 355 | t9U | 37016 | 5:44 | Ag | 15 | 1217 | 43 | 112 | 18800 | 292000 | 201 | 292000 | 0.148 | 40 | OUT | 16 | 0 | 18 | 1.32 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 356 | t9V | 37016 | 5:44 | Ag | 15 | 1217 | 43 | 112 | 18600 | 296000 | 204 | 296000 | 0.146 | 40 | OUT | 16 | 0 | 18 | 1.31 | 89 | 7 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 357 | t9W | 37016 | 5:45 | Ag | 15 | 1217 | 43 | 112 | 18400 | 73900 | 50.9 | 73900 | 0.580 | 40 | OUT | 4 | 0 | 18 | 1.29 | 89 | 8 | 43 | 112 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 358 | t9X | 37016 | 5:46 | Ag | 15 | 1217 | 43 | 112 | 17900 | 299000 | 206 | 299000 | 0.142 | 40 | OUT | 17 | 0 | 18 | 1.29 | 89 | 7 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 359 | t9Y | 37016 | 5:48 | Ag | 15 | 1217 | 43 | 112 | 17500 | 293000 | 202 | 293000 | 0.143 | 40 | OUT | 17 | 0 | 18 | 1.29 | 88 | 7 | 43 | 112 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | run #359 duplic |
| 360 | t9Z | 37016 | 5:55 | Ag | 15 | 1217 | 43 | 112 | 17300 | 305000 | 210 | 305000 | 0.136 | 40 | OUT | 18 | 0 | 18 | 1.29 | 89 | 7 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 361 | tA0 | 37016 | 5:56 | Ag | 15 | 1217 | 43 | 112 | 18300 | 301000 | 207 | 301000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.36 | 90 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 362 | tA1 | 37016 | 5:57 | Ag | 15 | 1217 | 43 | 112 | 18500 | 306000 | 211 | 306000 | 0.141 | 40 | OUT | 17 | 0 | 18 | 1.36 | 90 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 363 | tA2 | 37016 | 5:57 | Ag | 15 | 1217 | 43 | 112 | 17300 | 302000 | 208 | 302000 | 0.138 | 40 | OUT | 17 | 0 | 18 | 1.31 | 90 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 364 | tA3 | 37016 | 5:58 | Ag | 15 | 1217 | 43 | 112 | 18500 | 307000 | 212 | 307000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.38 | 91 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 365 | tA4 | 37016 | 5:58 | Ag | 15 | 1217 | 43 | 112 | 18100 | 298000 | 206 | 298000 | 0.143 | 40 | OUT | 16 | 0 | 18 | 1.38 | 91 | 5 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 366 | tA5 | 37016 | 5:59 | Ag | 15 | 1217 | 43 | 112 | 17200 | 302000 | 208 | 302000 | 0.137 | 40 | OUT | 18 | 0 | 18 | 1.34 | 91 | 5 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 367 | tA6 | 37016 | 5:59 | Ag | 15 | 1217 | 43 | 112 | 17300 | 298000 | 205 | 298000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.38 | 90 | 6 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 368 | tA7 | 37016 | 6:00 | Ag | 15 | 1217 | 43 | 112 | 17600 | 297000 | 205 | 297000 | 0.141 | 40 | OUT | 17 | 0 | 18 | 1.38 | 92 | 4 | 43 | 112 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 369 | tA8 | 37016 | 6:01 | Ag | 15 | 1217 | 43 | 112 | 18700 | 305000 | 210 | 305000 | 0.142 | 40 | OUT | 16 | 0 | 18 | 1.38 | 90 | 6 | 43 | 112 | Current | Current | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 370 | tA9 | 37016 | 6:01 | Ag | 15 | 1217 | 43 | 112 | 17400 | 297000 | 205 | 297000 | 0.140 | 40 | OUT | 17 | 0 | 18 | 1.32 | 90 | 6 | 43 | 112 | Current | Current | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 50.225 | 1 | 254 | 262 | 285 | 266 | 334 | 0 | Nolayers.lay | None. |
| 371 | tAA | 37016 | 6:57 | Au | 15 | 1480 | 90 | 80 | 22400 | 309000 | 445 | 309000 | 0.153 | 67 | OUT | 14 | 0 | 24 | 1.32 | 92 | 5 | 90 | 80 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 372 | tAB | 37016 | 6:57 | Au | 15 | 1480 | 90 | 80 | 21500 | 298000 | 429 | 298000 | 0.156 | 67 | OUT | 14 | 0 | 24 | 1.26 | 92 | 4 | 90 | 80 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 373 | tAC | 37016 | 6:58 | Au | 15 | 1480 | 90 | 80 | 21100 | 216000 | 311 | 216000 | 0.213 | 67 | OUT | 10 | 0 | 24 | 1.26 | 93 | 4 | 90 | 80 | Current | Current | -4.494 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 374 | tAD | 37016 | 6:59 | Au | 15 | 1480 | 90 | 80 | 21300 | 302000 | 436 | 302000 | 0.153 | 67 | OUT | 14 | 0 | 24 | 1.24 | 93 | 4 | 90 | 80 | Current | Current | -1.108 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 375 | tAE | 37016 | 7:00 | Au | 15 | 1480 | 90 | 80 | 21000 | 299000 | 432 | 299000 | 0.153 | 67 | OUT | 14 | 0 | 24 | 1.24 | 93 | 4 | 90 | 80 | Current | Current | 0.673 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 376 | tAF | 37016 | 7:00 | Au | 15 | 1480 | 90 | 80 | 20900 | 303000 | 437 | 303000 | 0.151 | 67 | OUT | 14 | 0 | 24 | 1.24 | 92 | 5 | 90 | 80 | Current | Current | 2.418 | -2.256 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 377 | tAG | 37016 | 7:02 | Au | 15 | 1480 | 90 | 80 | 22200 | 299000 | 432 | 299000 | 0.157 | 67 | OUT | 14 | 0 | 24 | 1.26 | 92 | 4 | 90 | 80 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 378 | tAH | 37016 | 7:02 | Au | 15 | 1480 | 90 | 80 | 21200 | 300000 | 433 | 300000 | 0.154 | 67 | OUT | 14 | 0 | 24 | 1.25 | 92 | 5 | 90 | 80 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 379 | tAI | 37016 | 7:03 | Au | 15 | 1480 | 90 | 80 | 21000 | 98900 | 143 | 98900 | 0.463 | 67 | OUT | 5 | 0 | 24 | 1.24 | 92 | 4 | 90 | 80 | Current | Current | -4.494 | -0.102 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 380 | tAJ | 37016 | 7:04 | Au | 15 | 1480 | 90 | 80 | 22100 | 309000 | 446 | 309000 | 0.152 | 67 | OUT | 14 | 0 | 24 | 1.26 | 92 | 4 | 90 | 80 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 381 | tAK | 37016 | 7:04 | Au | 15 | 1480 | 90 | 80 | 22400 | 293000 | 423 | 293000 | 0.161 | 67 | OUT | 13 | 0 | 24 | 1.26 | 92 | 4 | 90 | 80 | Current | Current | -2.859 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 382 | tAL | 37016 | 7:05 | Au | 15 | 1480 | 90 | 80 | 22400 | 302000 | 435 | 302000 | 0.157 | 67 | OUT | 13 | 0 | 24 | 1.26 | 92 | 5 | 90 | 80 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 383 | tAM | 37016 | 7:05 | Au | 15 | 1480 | 90 | 80 | 22900 | 300000 | 432 | 300000 | 0.160 | 67 | OUT | 13 | 0 | 24 | 1.25 | 92 | 4 | 90 | 80 | Current | Current | -1.108 | -0.062 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 384 | tAN | 37016 | 7:06 | Au | 15 | 1480 | 90 | 80 | 21600 | 300000 | 433 | 300000 | 0.155 | 67 | OUT | 14 | 0 | 24 | 1.25 | 91 | 5 | 90 | 80 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 385 | tAO | 37016 | 7:07 | Au | 15 | 1480 | 90 | 80 | 21800 | 292000 | 421 | 292000 | 0.160 | 67 | OUT | 13 | 0 | 24 | 1.25 | 91 | 5 | 90 | 80 | Current | Current | 0.673 | -0.061 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |

International Rectifier

| Run # | Ext | Date | Time | Beam | MeV/u | Energy *MeV* | LET *MeV.cm2/mg* | Range *µm* | <Flux> *#/cm2/sec* | Fluence *#/cm2* | Dose *RAD(Si)* | E-fluen *RAD(Si)* | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 386 | tAP | 37016 | 7:08 | Au | 15 | 1480 | 90 | 80 | 22100 | 305000 | 439 | 305000 | 0.154 | 67 | OUT | 14 | 0 | 24 | 1.25 | 93 | 4 | 90 | 80 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 387 | tAQ | 37016 | 7:09 | Au | 15 | 1480 | 90 | 80 | 22400 | 294000 | 423 | 294000 | 0.161 | 67 | OUT | 13 | 0 | 24 | 1.24 | 92 | 5 | 90 | 80 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 388 | tAR | 37016 | 7:09 | Au | 15 | 1480 | 90 | 80 | 22300 | 297000 | 428 | 297000 | 0.159 | 67 | OUT | 13 | 0 | 24 | 1.25 | 92 | 4 | 90 | 80 | Current | Current | 4.154 | -0.06 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 389 | tAS | 37016 | 7:10 | Au | 15 | 1480 | 90 | 80 | 22500 | 102000 | 148 | 102000 | 0.463 | 67 | OUT | 5 | 0 | 24 | 1.25 | 92 | 5 | 90 | 80 | Current | Current | -4.494 | 2.101 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 390 | tAT | 37016 | 7:12 | Au | 15 | 1480 | 90 | 80 | 23200 | 301000 | 434 | 301000 | 0.160 | 67 | OUT | 13 | 0 | 24 | 1.25 | 91 | 5 | 90 | 80 | Current | Current | -1.108 | 2.142 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 391 | tAU | 37016 | 7:12 | Au | 15 | 1480 | 90 | 80 | 23200 | 290000 | 418 | 290000 | 0.166 | 67 | OUT | 13 | 0 | 24 | 1.25 | 92 | 5 | 90 | 80 | Current | Current | 0.673 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 392 | tAV | 37016 | 7:14 | Au | 15 | 1480 | 90 | 80 | 22800 | 309000 | 446 | 309000 | 0.155 | 67 | OUT | 14 | 0 | 24 | 1.25 | 93 | 5 | 90 | 80 | Current | Current | 2.691 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |
| 393 | tAW | 37016 | 7:14 | Au | 15 | 1480 | 90 | 80 | 22800 | 298000 | 430 | 298000 | 0.160 | 67 | OUT | 13 | 0 | 24 | 1.25 | 91 | 5 | 90 | 80 | Current | Current | 4.397 | 2.144 | 0 | 0.502 | 0.886 | 0.737 | 40.775 | 2 | 260 | 270 | 293 | 275 | 344 | 0 | Nolayers.lay | None. |

International
IOR Rectifier

| Run # | Ext | Date | Time | Beam | MeV/u | Energy MeV | LET MeV.cm2/mg | Range µm | <Flux> #/cm2/sec | Fluence #/cm2 | Dose RAD(Si) | E-fluen RAD(Si) | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 384 | tAP | 45420 | 11:01 | Xe | 15 | 1278 | 53.7 | 101 | 11200 | 302000 | 259 | 302000 | .11E-01 | 5 | OUT | 27 | 0 | 19 | 1.13 | 96 | 2 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 385 | tAQ | 45420 | 11:04 | Xe | 15 | 1278 | 53.7 | 101 | 11000 | 298000 | 257 | 298000 | .11E-01 | 5 | OUT | 27 | 0 | 19 | 1.12 | 96 | 2 | 54 | 101 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 386 | tAR | 45420 | 11:04 | Xe | 15 | 1278 | 53.7 | 101 | 11100 | 305000 | 262 | 305000 | .10E-01 | 5 | OUT | 27 | 0 | 19 | 1.12 | 96 | 2 | 54 | 101 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 387 | tAS | 45420 | 11:08 | Xe | 15 | 1278 | 53.7 | 101 | 11100 | 306000 | 263 | 306000 | .09E-01 | 5 | OUT | 27 | 0 | 19 | 1.12 | 96 | 3 | 54 | 101 | IR0805 | Current | 4.061 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 388 | tAT | 45420 | 11:09 | Xe | 15 | 1278 | 53.7 | 101 | 11400 | 295000 | 254 | 295000 | .14E-01 | 5 | OUT | 26 | 0 | 19 | 1.14 | 96 | 3 | 54 | 101 | IR0805 | Current | 4.061 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 389 | tAU | 45420 | 11:10 | Xe | 15 | 1278 | 53.7 | 101 | 11300 | 93300 | 80.3 | 93300 | 3.60E-01 | 5 | OUT | 8 | 0 | 19 | 1.14 | 95 | 3 | 54 | 101 | IR0805 | Current | 4.061 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 390 | tAV | 45420 | 11:16 | Xe | 15 | 1623 | 50.3 | 129 | 11400 | 305000 | 246 | 305000 | 0.111 | 0 | OUT | 27 | 0 | 19 | 1.08 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 391 | tAW | 45420 | 11:17 | Xe | 15 | 1623 | 50.3 | 129 | 11400 | 295000 | 238 | 295000 | 0.114 | 0 | OUT | 26 | 0 | 19 | 1.08 | 94 | 4 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 392 | tAX | 45420 | 11:21 | Xe | 15 | 1623 | 50.3 | 129 | 10900 | 302000 | 244 | 302000 | 0.109 | 0 | OUT | 28 | 0 | 19 | 1.1 | 95 | 2 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 393 | tAY | 45420 | 11:22 | Xe | 15 | 1623 | 50.3 | 129 | 11100 | 301000 | 243 | 301000 | 0.111 | 0 | OUT | 27 | 0 | 19 | 1.12 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 394 | tAZ | 45420 | 11:23 | Xe | 15 | 1623 | 50.3 | 129 | 11500 | 295000 | 238 | 295000 | 0.115 | 0 | OUT | 26 | 0 | 19 | 1.12 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 395 | tB0 | 45420 | 11:24 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 296000 | 239 | 296000 | 0.116 | 0 | OUT | 25 | 0 | 19 | 1.12 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 396 | tB1 | 45420 | 11:25 | Xe | 15 | 1623 | 50.3 | 129 | 11700 | 300000 | 242 | 300000 | 0.114 | 0 | OUT | 26 | 0 | 19 | 1.12 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 397 | tB2 | 45420 | 11:25 | Xe | 15 | 1623 | 50.3 | 129 | 11900 | 305000 | 246 | 305000 | 0.113 | 0 | OUT | 26 | 0 | 19 | 1.15 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 398 | tB3 | 45420 | 11:26 | Xe | 15 | 1623 | 50.3 | 129 | 12000 | 301000 | 243 | 301000 | 0.115 | 0 | OUT | 25 | 0 | 19 | 1.15 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 399 | tB4 | 45420 | 11:27 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 296000 | 239 | 296000 | 0.116 | 0 | OUT | 25 | 0 | 19 | 1.13 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 400 | tB5 | 45420 | 11:28 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 296000 | 239 | 296000 | 0.116 | 0 | OUT | 25 | 0 | 19 | 1.13 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 401 | tB6 | 45420 | 11:28 | Xe | 15 | 1623 | 50.3 | 129 | 12200 | 296000 | 239 | 296000 | 0.118 | 0 | OUT | 24 | 0 | 19 | 1.16 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 402 | tB7 | 45420 | 11:29 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 305000 | 246 | 305000 | 0.113 | 0 | OUT | 26 | 0 | 19 | 1.13 | 95 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 403 | tB8 | 45420 | 11:33 | Xe | 15 | 1623 | 50.3 | 129 | 10900 | 304000 | 245 | 304000 | 0.108 | 0 | OUT | 28 | 0 | 19 | 1.13 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 404 | tB9 | 45420 | 11:34 | Xe | 15 | 1623 | 50.3 | 129 | 11500 | 295000 | 238 | 295000 | 0.115 | 0 | OUT | 26 | 0 | 19 | 1.16 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 405 | tBA | 45420 | 11:35 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 301000 | 243 | 301000 | 0.114 | 0 | OUT | 25 | 0 | 19 | 1.17 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 406 | tBB | 45420 | 11:36 | Xe | 15 | 1623 | 50.3 | 129 | 11800 | 301000 | 243 | 301000 | 0.114 | 0 | OUT | 26 | 0 | 19 | 1.17 | 94 | 3 | 50 | 129 | IR0805 | sckt7 | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 0 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | BVDSS before |
| 407 | tBC | 45420 | 11:44 | Xe | 15 | 1062 | 56.2 | 84 | 11000 | 305000 | 274 | 305000 | .09E-01 | 0 | OUT | 28 | 0 | 19 | 1.22 | 95 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 408 | tBD | 45420 | 11:45 | Xe | 15 | 1062 | 56.2 | 84 | 10900 | 302000 | 272 | 302000 | .09E-01 | 0 | OUT | 28 | 0 | 19 | 1.22 | 96 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 409 | tBE | 45420 | 11:49 | Xe | 15 | 1062 | 56.2 | 84 | 11100 | 305000 | 275 | 305000 | .09E-01 | 0 | OUT | 28 | 0 | 19 | 1.24 | 95 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 410 | tBF | 45420 | 11:49 | Xe | 15 | 1062 | 56.2 | 84 | 11000 | 296000 | 267 | 296000 | .12E-01 | 0 | OUT | 27 | 0 | 19 | 1.22 | 96 | 2 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 411 | tBG | 45420 | 11:50 | Xe | 15 | 1062 | 56.2 | 84 | 11100 | 298000 | 268 | 298000 | .12E-01 | 0 | OUT | 27 | 0 | 19 | 1.23 | 96 | 2 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 412 | tBH | 45420 | 11:51 | Xe | 15 | 1062 | 56.2 | 84 | 11100 | 302000 | 272 | 302000 | .10E-01 | 0 | OUT | 27 | 0 | 19 | 1.23 | 96 | 2 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 413 | tBI | 45420 | 11:52 | Xe | 15 | 1062 | 56.2 | 84 | 10800 | 304000 | 274 | 304000 | .08E-01 | 0 | OUT | 28 | 0 | 19 | 1.2 | 96 | 2 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 414 | tBJ | 45420 | 11:53 | Xe | 15 | 1062 | 56.2 | 84 | 10100 | 300000 | 270 | 300000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.2 | 96 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 415 | tBK | 45420 | 11:55 | Xe | 15 | 1062 | 56.2 | 84 | 10600 | 302000 | 272 | 302000 | .08E-01 | 0 | OUT | 28 | 0 | 19 | 1.23 | 95 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 416 | tBL | 45420 | 11:56 | Xe | 15 | 1062 | 56.2 | 84 | 10800 | 297000 | 267 | 297000 | .11E-01 | 0 | OUT | 28 | 0 | 19 | 1.24 | 95 | 3 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 417 | tBM | 45420 | 12:00 | Xe | 15 | 1278 | 53.7 | 101 | 10900 | 298000 | 256 | 298000 | .11E-01 | 5 | OUT | 27 | 0 | 19 | 1.19 | 95 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 418 | tBN | 45420 | 12:01 | Xe | 15 | 1278 | 53.7 | 101 | 10800 | 299000 | 257 | 299000 | .10E-01 | 5 | OUT | 28 | 0 | 19 | 1.19 | 94 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 419 | tBO | 45420 | 12:02 | Xe | 15 | 1278 | 53.7 | 101 | 10700 | 302000 | 260 | 302000 | .08E-01 | 5 | OUT | 28 | 0 | 19 | 1.21 | 95 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 420 | tBP | 45420 | 12:03 | Xe | 15 | 1278 | 53.7 | 101 | 10800 | 300000 | 258 | 300000 | .10E-01 | 5 | OUT | 28 | 0 | 19 | 1.21 | 95 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 421 | tBQ | 45420 | 12:04 | Xe | 15 | 1278 | 53.7 | 101 | 11000 | 304000 | 261 | 304000 | .09E-01 | 5 | OUT | 28 | 0 | 19 | 1.21 | 95 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 422 | tBR | 45420 | 12:05 | Xe | 15 | 1278 | 53.7 | 101 | 10600 | 296000 | 255 | 296000 | .10E-01 | 5 | OUT | 28 | 0 | 19 | 1.17 | 95 | 3 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 422 | tBS | 45420 | 12:06 | Xe | 15 | 1278 | 53.7 | 101 | 10800 | 296000 | 255 | 296000 | .11E-01 | 5 | OUT | 28 | 0 | 19 | 1.18 | 95 | 2 | 54 | 101 | IR0805 | Current | -0.692 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 423 | tBT | 45420 | 12:17 | Xe | 15 | 1278 | 53.7 | 101 | 10400 | 301000 | 259 | 301000 | .07E-01 | 5 | OUT | 29 | 0 | 19 | 1.14 | 95 | 3 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 424 | tBU | 45420 | 12:17 | Xe | 15 | 1278 | 53.7 | 101 | 10300 | 295000 | 254 | 295000 | .09E-01 | 5 | OUT | 29 | 0 | 19 | 1.14 | 94 | 3 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 425 | tBV | 45420 | 12:18 | Xe | 15 | 1278 | 53.7 | 101 | 10400 | 305000 | 262 | 305000 | .06E-01 | 5 | OUT | 29 | 0 | 19 | 1.15 | 94 | 3 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 426 | tBW | 45420 | 12:19 | Xe | 15 | 1278 | 53.7 | 101 | 10500 | 295000 | 254 | 295000 | .10E-01 | 5 | OUT | 28 | 0 | 19 | 1.15 | 94 | 3 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 427 | tBX | 45420 | 12:20 | Xe | 15 | 1278 | 53.7 | 101 | 10400 | 296000 | 255 | 296000 | .09E-01 | 5 | OUT | 28 | 0 | 19 | 1.15 | 94 | 4 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 428 | tBY | 45420 | 12:21 | Xe | 15 | 1278 | 53.7 | 101 | 10600 | 300000 | 259 | 300000 | .08E-01 | 5 | OUT | 28 | 0 | 19 | 1.18 | 94 | 4 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 429 | tBZ | 45420 | 12:23 | Xe | 15 | 1278 | 53.7 | 101 | 10600 | 303000 | 261 | 303000 | .07E-01 | 5 | OUT | 29 | 0 | 19 | 1.18 | 94 | 4 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 430 | tC0 | 45420 | 12:24 | Xe | 15 | 1278 | 53.7 | 101 | 10600 | 296000 | 255 | 296000 | .10E-01 | 5 | OUT | 28 | 0 | 19 | 1.16 | 94 | 3 | 54 | 101 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 431 | tC1 | 45420 | 12:31 | Xe | 15 | 1062 | 56.2 | 84 | 10500 | 303000 | 273 | 303000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.23 | 94 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 432 | tC2 | 45420 | 12:32 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 297000 | 268 | 297000 | .08E-01 | 0 | OUT | 29 | 0 | 19 | 1.22 | 95 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 433 | tC3 | 45420 | 12:33 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 298000 | 268 | 298000 | .08E-01 | 0 | OUT | 29 | 0 | 19 | 1.22 | 95 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 434 | tC4 | 45420 | 12:34 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 301000 | 271 | 301000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.21 | 94 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 435 | tC5 | 45420 | 12:35 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 303000 | 273 | 303000 | .06E-01 | 0 | OUT | 29 | 0 | 19 | 1.21 | 94 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 436 | tC6 | 45420 | 12:36 | Xe | 15 | 1062 | 56.2 | 84 | 10300 | 301000 | 271 | 301000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.21 | 94 | 3 | 56 | 84 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 437 | tC7 | 45420 | 12:44 | Xe | 15 | 915 | 57.9 | 73 | 10300 | 300000 | 278 | 300000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.3 | 95 | 3 | 58 | 73 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 438 | tC8 | 45420 | 12:45 | Xe | 15 | 915 | 57.9 | 73 | 10300 | 304000 | 282 | 304000 | .06E-01 | 0 | OUT | 29 | 0 | 19 | 1.3 | 95 | 2 | 58 | 73 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 439 | tC9 | 45420 | 12:46 | Xe | 15 | 915 | 57.9 | 73 | 9850 | 302000 | 280 | 302000 | .04E-01 | 0 | OUT | 31 | 0 | 19 | 1.24 | 95 | 3 | 58 | 73 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 440 | tCA | 45420 | 12:47 | Xe | 15 | 915 | 57.9 | 73 | 10200 | 301000 | 279 | 301000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.28 | 95 | 3 | 58 | 73 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 441 | tCB | 45420 | 12:53 | Xe | 15 | 683 | 60.6 | 56 | 9500 | 296000 | 287 | 296000 | .04E-01 | 5 | OUT | 31 | 0 | 19 | 1.31 | 95 | 3 | 61 | 56 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 442 | tCC | 45420 | 12:54 | Xe | 15 | 683 | 60.6 | 56 | 9530 | 301000 | 292 | 301000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.31 | 95 | 3 | 61 | 56 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 443 | tCD | 45420 | 12:57 | Xe | 15 | 683 | 60.6 | 56 | 9550 | 298000 | 289 | 298000 | .04E-01 | 5 | OUT | 31 | 0 | 19 | 1.31 | 94 | 4 | 61 | 56 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 444 | tCE | 45420 | 12:59 | Xe | 15 | 683 | 60.6 | 56 | 9220 | 297000 | 289 | 297000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.31 | 95 | 3 | 61 | 56 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 445 | tCF | 45420 | 13:00 | Xe | 15 | 683 | 60.6 | 56 | 9340 | 298000 | 290 | 298000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.31 | 95 | 3 | 61 | 56 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 446 | tCG | 45420 | 13:08 | Xe | 15 | 683 | 60.6 | 56 | 9450 | 300000 | 291 | 300000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 94 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 447 | tCH | 45420 | 13:09 | Xe | 15 | 683 | 60.6 | 56 | 9540 | 298000 | 289 | 298000 | .04E-01 | 5 | OUT | 31 | 0 | 19 | 1.32 | 95 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 448 | tCI | 45420 | 13:10 | Xe | 15 | 683 | 60.6 | 56 | 9570 | 297000 | 288 | 297000 | .04E-01 | 5 | OUT | 31 | 0 | 19 | 1.32 | 96 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 449 | tCJ | 45420 | 13:10 | Xe | 15 | 683 | 60.6 | 56 | 9520 | 303000 | 295 | 303000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 95 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 450 | tCK | 45420 | 13:11 | Xe | 15 | 683 | 60.6 | 56 | 9650 | 305000 | 296 | 305000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 95 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 451 | tCL | 45420 | 13:12 | Xe | 15 | 683 | 60.6 | 56 | 9620 | 299000 | 291 | 299000 | .04E-01 | 5 | OUT | 31 | 0 | 19 | 1.32 | 94 | 4 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 452 | tCM | 45420 | 13:13 | Xe | 15 | 683 | 60.6 | 56 | 9560 | 302000 | 293 | 302000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 95 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 453 | tCN | 45420 | 13:15 | Xe | 15 | 683 | 60.6 | 56 | 9360 | 299000 | 290 | 299000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 95 | 3 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 454 | tCO | 45420 | 13:16 | Xe | 15 | 683 | 60.6 | 56 | 9360 | 302000 | 293 | 302000 | .01E-01 | 5 | OUT | 32 | 0 | 19 | 1.32 | 94 | 4 | 61 | 56 | IR0805 | Current | -2.31 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 38.813 | 2 | 330 | 398 | 385 | 382 | 420 | 0 | IR0805.lay | None. |
| 455 | tCP | 45420 | 13:23 | Xe | 15 | 915 | 57.9 | 73 | 9580 | 295000 | 274 | 295000 | .05E-01 | 0 | OUT | 31 | 0 | 19 | 1.26 | 94 | 4 | 58 | 73 | IR0805 | Current | -0.699 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 456 | tCQ | 45420 | 13:24 | Xe | 15 | 915 | 57.9 | 73 | 9660 | 303000 | 281 | 303000 | .02E-01 | 0 | OUT | 31 | 0 | 19 | 1.26 | 94 | 4 | 58 | 73 | IR0805 | Current | -0.699 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 457 | tCR | 45420 | 13:25 | Xe | 15 | 915 | 57.9 | 73 | 9590 | 299000 | 277 | 299000 | .04E-01 | 0 | OUT | 31 | 0 | 19 | 1.26 | 94 | 4 | 58 | 73 | IR0805 | Current | -0.699 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 458 | tCS | 45420 | 13:26 | Xe | 15 | 915 | 57.9 | 73 | 9630 | 296000 | 274 | 296000 | .05E-01 | 0 | OUT | 31 | 0 | 19 | 1.28 | 93 | 4 | 58 | 73 | IR0805 | Current | -0.699 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 459 | tCT | 45420 | 13:28 | Xe | 15 | 915 | 57.9 | 73 | 9560 | 299000 | 278 | 299000 | .03E-01 | 0 | OUT | 31 | 0 | 19 | 1.27 | 93 | 4 | 58 | 73 | IR0805 | Current | -0.699 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 59.688 | 1 | 315 | 377 | 360 | 357 | 400 | 0 | IR0805.lay | None. |
| 460 | tCU | 45420 | 13:31 | Xe | 15 | 1062 | 56.2 | 84 | 9960 | 256000 | 231 | 256000 | .23E-01 | 0 | OUT | 26 | 0 | 19 | 1.24 | 92 | 5 | 56 | 84 | IR0805 | Current | 0.907 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |

International IOR Rectifier

| Run # | Ext | Date | Time | Beam | MeV/u | Energy *MeV* | LET *MeV.cm2/mg* | Range *µm* | <Flux> *#/cm2/sec* | Fluence *#/cm2* | Dose *RAD(Si)* | E-fluen *RAD(Si)* | %err | Al(um) | USD | Live | Dead | BID | Gain | Unif | Shft | E-LET | E-range | Board | DUT | X(in) | Y(in) | Z(in) | T(deg) | U(in) | V(in) | R(deg) | S | V1 | V2 | V3 | V4 | V5 | V6 | Layers-file | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 461 | tCV | 45420 | 13:33 | Xe | 15 | 1062 | 56.2 | 84 | 10100 | 301000 | 271 | 301000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.28 | 92 | 5 | 56 | 84 | IR0805 | Current | 2.483 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 462 | tCW | 45420 | 13:35 | Xe | 15 | 1062 | 56.2 | 84 | 10300 | 301000 | 270 | 301000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.28 | 92 | 5 | 56 | 84 | IR0805 | Current | 4.091 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 463 | tCX | 45420 | 13:36 | Xe | 15 | 1062 | 56.2 | 84 | 10000 | 298000 | 269 | 298000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.25 | 93 | 5 | 56 | 84 | IR0805 | Current | 4.091 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 464 | tCY | 45420 | 13:37 | Xe | 15 | 1062 | 56.2 | 84 | 9950 | 81200 | 73.1 | 81200 | .88E-01 | 0 | OUT | 8 | 0 | 19 | 1.24 | 91 | 5 | 56 | 84 | IR0805 | Current | 4.091 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 465 | tCZ | 45420 | 13:40 | Xe | 15 | 1062 | 56.2 | 84 | 9740 | 301000 | 271 | 301000 | .04E-01 | 0 | OUT | 31 | 0 | 19 | 1.24 | 92 | 5 | 56 | 84 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 466 | tD0 | 45420 | 13:40 | Xe | 15 | 1062 | 56.2 | 84 | 9700 | 303000 | 273 | 303000 | .03E-01 | 0 | OUT | 31 | 0 | 19 | 1.24 | 92 | 5 | 56 | 84 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 467 | tD1 | 45420 | 13:41 | Xe | 15 | 1062 | 56.2 | 84 | 9720 | 303000 | 273 | 303000 | .03E-01 | 0 | OUT | 31 | 0 | 19 | 1.24 | 92 | 5 | 56 | 84 | IR0805 | Current | 0.931 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 468 | tD2 | 45420 | 13:44 | Xe | 15 | 1278 | 53.7 | 101 | 9950 | 297000 | 255 | 297000 | .06E-01 | 5 | OUT | 30 | 0 | 19 | 1.22 | 92 | 5 | 54 | 101 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 469 | tD3 | 45420 | 13:46 | Xe | 15 | 1278 | 53.7 | 101 | 10000 | 303000 | 261 | 303000 | .04E-01 | 5 | OUT | 30 | 0 | 19 | 1.22 | 92 | 5 | 54 | 101 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 470 | tD4 | 45420 | 13:47 | Xe | 15 | 1278 | 53.7 | 101 | 10000 | 297000 | 255 | 297000 | .07E-01 | 5 | OUT | 30 | 0 | 19 | 1.22 | 92 | 5 | 54 | 101 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 471 | tD5 | 45420 | 13:48 | Xe | 15 | 1278 | 53.7 | 101 | 9690 | 304000 | 261 | 304000 | .03E-01 | 5 | OUT | 31 | 0 | 19 | 1.19 | 92 | 5 | 54 | 101 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 472 | tD6 | 45420 | 13:49 | Xe | 15 | 1278 | 53.7 | 101 | 9730 | 276000 | 238 | 276000 | .13E-01 | 5 | OUT | 28 | 0 | 19 | 1.19 | 91 | 5 | 54 | 101 | IR0805 | Current | 2.507 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 473 | tD7 | 45420 | 13:55 | Xe | 15 | 1150 | 55.2 | 90 | 9820 | 299000 | 265 | 299000 | .05E-01 | 4 | OUT | 31 | 0 | 19 | 1.23 | 92 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 474 | tD8 | 45420 | 13:56 | Xe | 15 | 1150 | 55.2 | 90 | 9780 | 302000 | 267 | 302000 | .04E-01 | 4 | OUT | 31 | 0 | 19 | 1.22 | 92 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 475 | tD9 | 45420 | 13:57 | Xe | 15 | 1150 | 55.2 | 90 | 9810 | 298000 | 264 | 298000 | .05E-01 | 4 | OUT | 30 | 0 | 19 | 1.22 | 91 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 476 | tDA | 45420 | 13:57 | Xe | 15 | 1150 | 55.2 | 90 | 9780 | 298000 | 263 | 298000 | .05E-01 | 4 | OUT | 30 | 0 | 19 | 1.22 | 92 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 477 | tDB | 45420 | 13:58 | Xe | 15 | 1150 | 55.2 | 90 | 9660 | 299000 | 264 | 299000 | .04E-01 | 4 | OUT | 31 | 0 | 19 | 1.21 | 91 | 6 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 478 | tDC | 45420 | 13:59 | Xe | 15 | 1150 | 55.2 | 90 | 9650 | 300000 | 265 | 300000 | .04E-01 | 4 | OUT | 31 | 0 | 19 | 1.21 | 91 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 479 | tDD | 45420 | 14:00 | Xe | 15 | 1150 | 55.2 | 90 | 9800 | 298000 | 263 | 298000 | .05E-01 | 4 | OUT | 30 | 0 | 19 | 1.22 | 92 | 5 | 55 | 90 | IR0805 | Current | 4.118 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 1 | 302 | 361 | 339 | 336 | 384 | 0 | IR0805.lay | None. |
| 480 | tDE | 45420 | 14:05 | Xe | 15 | 1623 | 50.3 | 129 | 10200 | 297000 | 240 | 297000 | 0.107 | 0 | OUT | 29 | 0 | 19 | 1.19 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 481 | tDF | 45420 | 14:06 | Xe | 15 | 1623 | 50.3 | 129 | 10300 | 295000 | 238 | 295000 | 0.109 | 0 | OUT | 29 | 0 | 19 | 1.19 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 482 | tDG | 45420 | 14:07 | Xe | 15 | 1623 | 50.3 | 129 | 10200 | 304000 | 245 | 304000 | 0.105 | 0 | OUT | 30 | 0 | 19 | 1.19 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 483 | tDH | 45420 | 14:07 | Xe | 15 | 1623 | 50.3 | 129 | 9990 | 297000 | 240 | 297000 | 0.106 | 0 | OUT | 30 | 0 | 19 | 1.19 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 484 | tDI | 45420 | 14:08 | Xe | 15 | 1623 | 50.3 | 129 | 10100 | 302000 | 243 | 302000 | 0.105 | 0 | OUT | 30 | 0 | 19 | 1.19 | 92 | 5 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 485 | tDJ | 45420 | 14:09 | Xe | 15 | 1623 | 50.3 | 129 | 10300 | 302000 | 244 | 302000 | 0.106 | 0 | OUT | 29 | 0 | 19 | 1.19 | 91 | 5 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 486 | tDK | 45420 | 14:10 | Xe | 15 | 1623 | 50.3 | 129 | 9870 | 296000 | 238 | 296000 | 0.106 | 0 | OUT | 30 | 0 | 19 | 1.16 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 487 | tDL | 45420 | 14:11 | Xe | 15 | 1623 | 50.3 | 129 | 9890 | 300000 | 242 | 300000 | 0.105 | 0 | OUT | 30 | 0 | 19 | 1.16 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 488 | tDM | 45420 | 14:12 | Xe | 15 | 1623 | 50.3 | 129 | 9790 | 302000 | 243 | 302000 | 0.104 | 0 | OUT | 31 | 0 | 19 | 1.16 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 489 | tDN | 45420 | 14:12 | Xe | 15 | 1623 | 50.3 | 129 | 9920 | 301000 | 242 | 301000 | 0.105 | 0 | OUT | 30 | 0 | 19 | 1.17 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 490 | tDO | 45420 | 14:13 | Xe | 15 | 1623 | 50.3 | 129 | 9930 | 300000 | 242 | 300000 | 0.105 | 0 | OUT | 30 | 0 | 19 | 1.17 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 491 | tDP | 45420 | 14:14 | Xe | 15 | 1623 | 50.3 | 129 | 9960 | 302000 | 244 | 302000 | 0.104 | 0 | OUT | 30 | 0 | 19 | 1.17 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 492 | tDQ | 45420 | 14:15 | Xe | 15 | 1623 | 50.3 | 129 | 9160 | 303000 | 245 | 303000 | 0.100 | 0 | OUT | 33 | 0 | 19 | 1.16 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 493 | tDR | 45420 | 14:16 | Xe | 15 | 1623 | 50.3 | 129 | 9550 | 297000 | 240 | 297000 | 0.104 | 0 | OUT | 31 | 0 | 19 | 1.16 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 494 | tDS | 45420 | 14:17 | Xe | 15 | 1623 | 50.3 | 129 | 9780 | 303000 | 244 | 303000 | 0.103 | 0 | OUT | 31 | 0 | 19 | 1.16 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 495 | tDT | 45420 | 14:18 | Xe | 15 | 1623 | 50.3 | 129 | 9630 | 299000 | 241 | 299000 | 0.104 | 0 | OUT | 31 | 0 | 19 | 1.14 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 496 | tDU | 45420 | 14:19 | Xe | 15 | 1623 | 50.3 | 129 | 9610 | 299000 | 241 | 299000 | 0.104 | 0 | OUT | 31 | 0 | 19 | 1.14 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 497 | tDV | 45420 | 14:20 | Xe | 15 | 1623 | 50.3 | 129 | 9540 | 305000 | 246 | 305000 | 0.101 | 0 | OUT | 32 | 0 | 19 | 1.14 | 91 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 498 | tDW | 45420 | 14:21 | Xe | 15 | 1623 | 50.3 | 129 | 9970 | 299000 | 241 | 299000 | 0.106 | 0 | OUT | 30 | 0 | 19 | 1.16 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.896 | 2.369 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 499 | tDX | 45420 | 14:53 | Xe | 15 | 1623 | 50.3 | 129 | 10400 | 304000 | 245 | 304000 | 0.106 | 0 | OUT | 29 | 0 | 19 | 1.18 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 501 | tDY | 45420 | 14:54 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 295000 | 238 | 295000 | 0.110 | 0 | OUT | 28 | 0 | 19 | 1.19 | 90 | 7 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 502 | tDZ | 45420 | 14:55 | Xe | 15 | 1623 | 50.3 | 129 | 10500 | 301000 | 243 | 301000 | 0.108 | 0 | OUT | 29 | 0 | 19 | 1.19 | 89 | 7 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 503 | tE0 | 45420 | 14:56 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 304000 | 245 | 304000 | 0.107 | 0 | OUT | 29 | 0 | 19 | 1.19 | 90 | 6 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 504 | tE1 | 45420 | 14:56 | Xe | 15 | 1623 | 50.3 | 129 | 10500 | 299000 | 242 | 299000 | 0.108 | 0 | OUT | 29 | 0 | 19 | 1.19 | 90 | 7 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 505 | tE2 | 45420 | 14:57 | Xe | 15 | 1623 | 50.3 | 129 | 10400 | 89400 | 72.1 | 89400 | 0.361 | 0 | OUT | 9 | 0 | 19 | 1.18 | 88 | 7 | 50 | 129 | IR0805 | Current | -3.876 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 506 | tE3 | 45420 | 15:00 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 297000 | 239 | 297000 | 0.109 | 0 | OUT | 28 | 0 | 19 | 1.18 | 90 | 7 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 507 | tE4 | 45420 | 15:01 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 299000 | 241 | 299000 | 0.109 | 0 | OUT | 28 | 0 | 19 | 1.18 | 89 | 7 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 508 | tE5 | 45420 | 15:02 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 303000 | 244 | 303000 | 0.108 | 0 | OUT | 28 | 0 | 19 | 1.18 | 89 | 7 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 509 | tE6 | 45420 | 15:02 | Xe | 15 | 1623 | 50.3 | 129 | 10500 | 299000 | 241 | 299000 | 0.108 | 0 | OUT | 29 | 0 | 19 | 1.16 | 89 | 7 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 510 | tE7 | 45420 | 15:03 | Xe | 15 | 1623 | 50.3 | 129 | 10600 | 295000 | 238 | 295000 | 0.110 | 0 | OUT | 28 | 0 | 19 | 1.16 | 88 | 8 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 511 | tE8 | 45420 | 15:04 | Xe | 15 | 1623 | 50.3 | 129 | 10500 | 295000 | 238 | 295000 | 0.110 | 0 | OUT | 28 | 0 | 19 | 1.16 | 88 | 8 | 50 | 129 | IR0805 | Current | -2.285 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 42.463 | 0 | 282 | 335 | 307 | 304 | 358 | 0 | IR0805.lay | None. |
| 512 | tE9 | 45420 | 15:06 | Xe | 15 | 1278 | 53.7 | 101 | 9300 | 305000 | 262 | 305000 | .00E-01 | 5 | OUT | 33 | 0 | 19 | 1.16 | 90 | 6 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 513 | tEA | 45420 | 15:07 | Xe | 15 | 1278 | 53.7 | 101 | 9560 | 304000 | 261 | 304000 | .02E-01 | 5 | OUT | 32 | 0 | 19 | 1.16 | 89 | 7 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 514 | tEB | 45420 | 15:09 | Xe | 15 | 1278 | 53.7 | 101 | 10000 | 298000 | 256 | 298000 | .06E-01 | 5 | OUT | 30 | 0 | 19 | 1.2 | 89 | 7 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 515 | tEC | 45420 | 15:10 | Xe | 15 | 1278 | 53.7 | 101 | 10000 | 296000 | 255 | 296000 | .07E-01 | 5 | OUT | 30 | 0 | 19 | 1.2 | 89 | 7 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 516 | tED | 45420 | 15:11 | Xe | 15 | 1278 | 53.7 | 101 | 10500 | 299000 | 258 | 299000 | .08E-01 | 5 | OUT | 28 | 0 | 19 | 1.17 | 88 | 8 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 517 | tEE | 45420 | 15:12 | Xe | 15 | 1278 | 53.7 | 101 | 10400 | 227000 | 195 | 227000 | .43E-01 | 5 | OUT | 22 | 0 | 19 | 1.17 | 88 | 8 | 54 | 101 | IR0805 | Current | -0.666 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 518 | tEF | 45420 | 15:13 | Xe | 15 | 1278 | 53.7 | 101 | 10500 | 297000 | 256 | 297000 | .09E-01 | 5 | OUT | 28 | 0 | 19 | 1.17 | 87 | 8 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 519 | tEG | 45420 | 15:14 | Xe | 15 | 1278 | 53.7 | 101 | 11100 | 300000 | 258 | 300000 | .11E-01 | 5 | OUT | 27 | 0 | 19 | 1.23 | 87 | 9 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 520 | tEH | 45420 | 15:15 | Xe | 15 | 1278 | 53.7 | 101 | 11200 | 299000 | 257 | 299000 | .12E-01 | 5 | OUT | 27 | 0 | 19 | 1.23 | 87 | 8 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 521 | tEI | 45420 | 15:16 | Xe | 15 | 1278 | 53.7 | 101 | 11100 | 297000 | 256 | 297000 | .12E-01 | 5 | OUT | 27 | 0 | 19 | 1.23 | 87 | 8 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 522 | tEJ | 45420 | 15:17 | Xe | 15 | 1278 | 53.7 | 101 | 10900 | 302000 | 260 | 302000 | .09E-01 | 5 | OUT | 28 | 0 | 19 | 1.18 | 87 | 8 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 523 | tEK | 45420 | 15:18 | Xe | 15 | 1278 | 53.7 | 101 | 10800 | 305000 | 262 | 305000 | .08E-01 | 5 | OUT | 28 | 0 | 19 | 1.18 | 87 | 8 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 524 | tEL | 45420 | 15:19 | Xe | 15 | 1278 | 53.7 | 101 | 10900 | 305000 | 262 | 305000 | .08E-01 | 5 | OUT | 28 | 0 | 19 | 1.19 | 87 | 9 | 54 | 101 | IR0805 | Current | 0.886 | -2.454 | -5.671 | 0 | 1.765 | 1.75 | 2.975 | 1 | 296 | 353 | 329 | 326 | 376 | 0 | IR0805.lay | None. |
| 525 | tEM | 45420 | 15:22 | Xe | 15 | 1062 | 56.2 | 84 | 9800 | 303000 | 273 | 303000 | .03E-01 | 0 | OUT | 31 | 0 | 19 | 1.25 | 88 | 8 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 526 | tEN | 45420 | 15:23 | Xe | 15 | 1062 | 56.2 | 84 | 10000 | 296000 | 266 | 296000 | .07E-01 | 0 | OUT | 30 | 0 | 19 | 1.25 | 87 | 8 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 527 | tEO | 45420 | 15:24 | Xe | 15 | 1062 | 56.2 | 84 | 9850 | 295000 | 266 | 295000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.24 | 89 | 8 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 528 | tEP | 45420 | 15:25 | Xe | 15 | 1062 | 56.2 | 84 | 9820 | 295000 | 266 | 295000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.24 | 88 | 8 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 529 | tEQ | 45420 | 15:26 | Xe | 15 | 1062 | 56.2 | 84 | 9880 | 300000 | 270 | 300000 | .05E-01 | 0 | OUT | 30 | 0 | 19 | 1.24 | 88 | 8 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 530 | tER | 45420 | 15:27 | Xe | 15 | 1062 | 56.2 | 84 | 9850 | 160000 | 144 | 160000 | .96E-01 | 0 | OUT | 16 | 0 | 19 | 1.24 | 88 | 7 | 56 | 84 | IR0805 | Current | 2.515 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 531 | tES | 45420 | 15:28 | Xe | 15 | 1062 | 56.2 | 84 | 10000 | 302000 | 272 | 302000 | .05E-01 | 0 | OUT | 30 | 0 | 19 | 1.24 | 88 | 8 | 56 | 84 | IR0805 | Current | 4.061 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 532 | tET | 45420 | 15:29 | Xe | 15 | 1062 | 56.2 | 84 | 10300 | 303000 | 273 | 303000 | .06E-01 | 0 | OUT | 30 | 0 | 19 | 1.28 | 88 | 8 | 56 | 84 | IR0805 | Current | 4.061 | -2.427 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 533 | tEU | 45420 | 15:31 | Xe | 15 | 1062 | 56.2 | 84 | 10300 | 300000 | 270 | 300000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.28 | 88 | 8 | 56 | 84 | IR0805 | Current | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 534 | tEV | 45420 | 15:32 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 300000 | 270 | 300000 | .07E-01 | 0 | OUT | 29 | 0 | 19 | 1.28 | 87 | 8 | 56 | 84 | IR0805 | Current | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 535 | tEW | 45420 | 15:33 | Xe | 15 | 1062 | 56.2 | 84 | 10400 | 299000 | 269 | 299000 | .08E-01 | 0 | OUT | 29 | 0 | 19 | 1.28 | 88 | 8 | 56 | 84 | IR0805 | Current | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 536 | tEX | 45420 | 15:33 | Xe | 15 | 1062 | 56.2 | 84 | 10200 | 301000 | 270 | 301000 | .06E-01 | 0 | OUT | 29 | 0 | 19 | 1.28 | 87 | 9 | 56 | 84 | IR0805 | Current | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 537 | tEY | 45420 | 15:34 | Xe | 15 | 1062 | 56.2 | 84 | 10200 | 117000 | 105 | 117000 | .73E-01 | 0 | OUT | 11 | 0 | 19 | 1.26 | 88 | 7 | 56 | 84 | IR0805 | Current | -3.876 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |
| 538 | tEZ | 45420 | 15:36 | Xe | 15 | 1062 | 56.2 | 84 | 10200 | 305000 | 274 | 305000 | .05E-01 | 0 | OUT | 30 | 0 | 19 | 1.26 | 88 | 8 | 56 | 84 | IR0805 | Current | -2.28 | -0.008 | -5.671 | 0 | 1.765 | 1.75 | 51.138 | 1 | 307 | 367 | 346 | 343 | 390 | 0 | IR0805.lay | None. |

# Appendix C

# International Rectifier

# Test Plan

# and

# Procedure

International
IOR Rectifier

# April 2005 Test Plan, Single Event Effects (TAMU, K500 Superconducting Cyclotron)

**1.0 Purpose**

The purpose of this test is to characterize and establish Single Event Effects (SEE) Safe-Operating-Area (SOA) curves for several International Rectifier Corp. (IR) Power MOSFET devices. The data resulting from the tests shall be used for qualification to several US Government military slash sheets and shall be incorporated in the IR data sheets.

**2.0 Test Responsibility**

IR shall be responsible for conducting the tests, which shall be performed at the Texas A & M University (TAMU), Cyclotron Institute. IR shall be responsible for the SEE testing of devices-under-test (DUT) and final Test Report.

**3.0 Test Facility**

3.1 K500 Superconducting Cyclotron

The Texas A&M University, Tandem K500 Superconducting Cyclotron shall be used to provide the necessary ion species and energy. TAMU Cyclotron Institute shall provide adequate dosimeter for verification of the ion beam parameters.

3.2 Test Equipment

The necessary test equipment including the test interface board, cables, power supplies, etc. shall be provided by IR. IR shall provide the equipment needed to de-lid and handle the individual test devices.

**4.0 Test Devices**

4.1 The following device types are planned for characterization and qualification:

| | |
|---|---|
| IRH67C30 | (Hex-3, 600V, N-channel, R6, MR Process) |
| IRH67264 | (Hex-6, 250V, N-channel, R6, MR Process) |
| IRHL77214 | (Hex-1, 250V, N-channel, R7 Logic, MR Process) |

4.2 All devices shall be built in TO-3 packages. The devices shall be properly sealed and packed for transportation to TAMU Cyclotron Institute.

4.3 All devices shall be verified for correct electrical performance prior to arrival at TAMU Cyclotron.

**5.0 Test Method**

The MIL-STD-750, Method 1080 shall be used to set procedure for all testing described herein.

**6.0 Ion Specie and Energy**

There are three (3) available ion specie with different energy level, at TAMU. All parts will be first tested with one specie of lowest energy (LET) level before the Accelerator is switched to the next ion specie with higher energy level.

| | | | | |
|---|---|---|---|---|
| a. Xenon | ${}_{54}Xe^{131}$ | Energy = 2441 MeV | LET = 43 MeV/(mg/cm$^2$) | Range = 205 µm |
| b. Silver | ${}_{47}Ag^{109}$ | Energy = 1217 MeV | LET = 43 MeV/(mg/cm$^2$) | Range = 112 µm |
| c. Xenon | ${}_{54}Xe^{131}$ | Energy = 825 MeV | LET = 59 MeV/(mg/cm$^2$) | Range = 66 µm |
| d. Gold | ${}_{79}Au^{197}$ | Energy = 1480 MeV | LET = 90 MeV/(mg/cm$^2$) | Range = 80 µm |

## 7.0 Record Keeping

Each irradiation shall be assigned a run number. This number will be used to correlate data from different sources.

7.1 Cyclotron Accelerator Output

The K500 Cyclotron Institute shall provide a hardcopy summary of all test runs showing key parameters such as run, date, time, flux, fluence, ion, energy, LET, and range. An output of beam diagnostics shall also be provided.

7.2 IR Output

IR shall also keep a written log of each run including run, ion, device tested, VDS and VGS biases. IR shall also record comments regarding the test including observations or deviations from test plan.

## 8.0 Characterizations and Verification

Characterization and Verification may be accomplished simultaneously. Characterization implies that the SOA curve is set using at least one (1) device at each insitu bias. Verification is simply an extension of the characterization, demonstrating total three (3) non-destructive devices passing at each insitu bias condition.

## 9.0 Test Procedure

The IR Product Engineer assigned to this test shall control the following test procedure based on Test Method 1080. IR shall be responsible to direct the ion specie, beam characteristics, insitu bias conditions and device selection.

9.1 Nominal Beam Characteristics are : Flux = $1x10^4$ (1E4) ions/$cm^2$/sec.
Fluence = $3x10^5$ (3E5) ions/$cm^2$.
Beam Diameter = 1.5 cm.
(or large enough to cover the whole die-attachment area)

9.2 Initial Starting Point : typically at VDS =Rated VDS and VGS = 0.

9.3 Irradiate the device at the selected flux and fluence.

9.4 Post irradiation, test IDSS & IGSS at VDS=80% Rated VDS and VGS up to 20 V (5 V increment).

9.5 Based on apparent pass or fail, select next operating conditions.

9.6 Repeat with new device.

## 10. Test Report

The Test Report shall include the following information :

a. Device Type(s), serial numbers, wafer lot identification, date code (if applicable).
b. Test dates and personnel names.
c. Facility, accelerator type.
d. Ion specie, energy, LET, range, flux and fluence.
e. Schematic of test circuit used.
f. Dosimeter for each ion beam used.
g. Insitu bias conditions.
h. Comments and observations.
i. Pre and post electrical test results.
j. Summary description including curves.

# August 2005 Test Plan, Single Event Effects (TAMU, K500 Superconducting Cyclotron)

**1.0 Purpose**

The purpose of this test is to characterize and establish Single Event Effects (SEE) Worst-case Beam Test Conditions for several International Rectifier Corp. (IR) Power MOSFET devices. The data resulting from the tests shall be used for studying SEE Sensitivity of the IR RH MOSFET designs related to SEE Beam Bragg Peak penetration depth.

**2.0 Test Responsibility**

IR shall be responsible for conducting the tests, which shall be performed at the Texas A & M University (TAMU), Cyclotron Institute. IR shall be responsible for the SEE testing of devices-under-test (DUT) and final Test Report.

**3.0 Test Facility**

3.1 K500 Superconducting Cyclotron

The Texas A&M University, Tandem K500 Superconducting Cyclotron shall be used to provide the necessary ion species and energy. TAMU Cyclotron Institute shall provide adequate dosimeter for verification of the ion beam parameters.

3.2 Test Equipment

The necessary test equipment including the test interface board, cables, power supplies, etc. shall be provided by IR. IR shall provide the equipment needed to de-lid and handle the individual test devices.

**4.0 Test Devices**

4.1 The following device types are planned for characterization and qualification:

IRH67C30 (Hex-3, 600V, N-channel, R6, MR Process)
IRH67264 (Hex-6, 250V, N-channel, R6, MR Process)

4.2 All devices shall be built in TO-3 packages. The devices shall be properly sealed and packed for transportation to TAMU Cyclotron Institute.

4.3 All devices shall be verified for correct electrical performance prior to arrival at TAMU Cyclotron.

**5.0 Test Method**

The MIL-STD-750, Method 1080 shall be used to set procedure for all testing described herein.

**6.0 Ion Specie and Energy**

There are three (3) available ion specie with different energy level, at TAMU. All parts will be first tested with one specie of lowest energy (LET) level before the Accelerator is switched to the next ion specie with higher energy level.

a. Krypton $_{54}Kr^{84}$ Energy = 300-2000 MeV LET = 20-40 MeV/(mg/cm$^2$) Range = 40-300 µm

b. Xenon $_{54}Xe^{131}$ Energy = 825 MeV LET = 59 MeV/(mg/cm$^2$) Range = 66 µm

c. Gold $_{79}Au^{197}$ Energy = 1480 MeV LET = 90 MeV/(mg/cm$^2$) Range = 80 µm

By using Air Gap as additional degrader together with cyclotron's degrader foil system, various beam conditions can be selected to put the beam Bragg Peak at or between each sensitive depth (junction, first epi, buffer, substrate)

## 7.0 Record Keeping

Each irradiation shall be assigned a run number. This number will be used to correlate data from different sources.

7.1 Cyclotron Accelerator Output

The K500 Cyclotron Institute shall provide a hardcopy summary of all test runs showing key parameters such as run, date, time, flux, fluence, ion, energy, LET, and range. An output of beam diagnostics shall also be provided.

7.2 IR Output

IR shall also keep a written log of each run including run, ion, device tested, VDS and VGS biases. IR shall also record comments regarding the test including observations or deviations from test plan.

## 8.0 Characterizations and Verification

Characterization and Verification may be accomplished simultaneously. Characterization implies that the SOA curve is set using at least one (1) device at each insitu bias. Verification is simply an extension of the characterization, demonstrating total three (3) non-destructive devices passing at each insitu bias condition.

## 9.0 Test Procedure

The IR Product Engineer assigned to this test shall control the following test procedure based on Test Method 1080. IR shall be responsible to direct the ion specie, beam characteristics, insitu bias conditions and device selection.

9.1 Nominal Beam Characteristics are : Flux = $1 \times 10^4$ (1E4) ions/cm$^2$/sec.
Fluence = $3 \times 10^5$ (3E5) ions/cm$^2$.
Beam Diameter = 1.5 cm.
(or large enough to cover the whole die-attachment area)

9.2 Initial Starting Point : typically at VDS =Rated VDS and VGS = 0.

9.3 Irradiate the device at the selected flux and fluence.

9.4 Post irradiation, test IDSS & IGSS at VDS=80% Rated VDS and VGS up to 20 V (5 V increment).

9.5 Based on apparent pass or fail, select next operating conditions.

9.6 Repeat with new device.

## 10. Test Report

The Test Report shall include the following information :

a. Device Type(s), serial numbers, wafer lot identification, date code (if applicable).
b. Test dates and personnel names.
c. Facility, accelerator type.
d. Ion specie, energy, LET, range, flux and fluence.
e. Schematic of test circuit used.
f. Dosimeter for each ion beam used.
g. Insitu bias conditions.
h. Comments and observations.
i. Pre and post electrical test results.
j. Summary description including curves.

# Appendix D

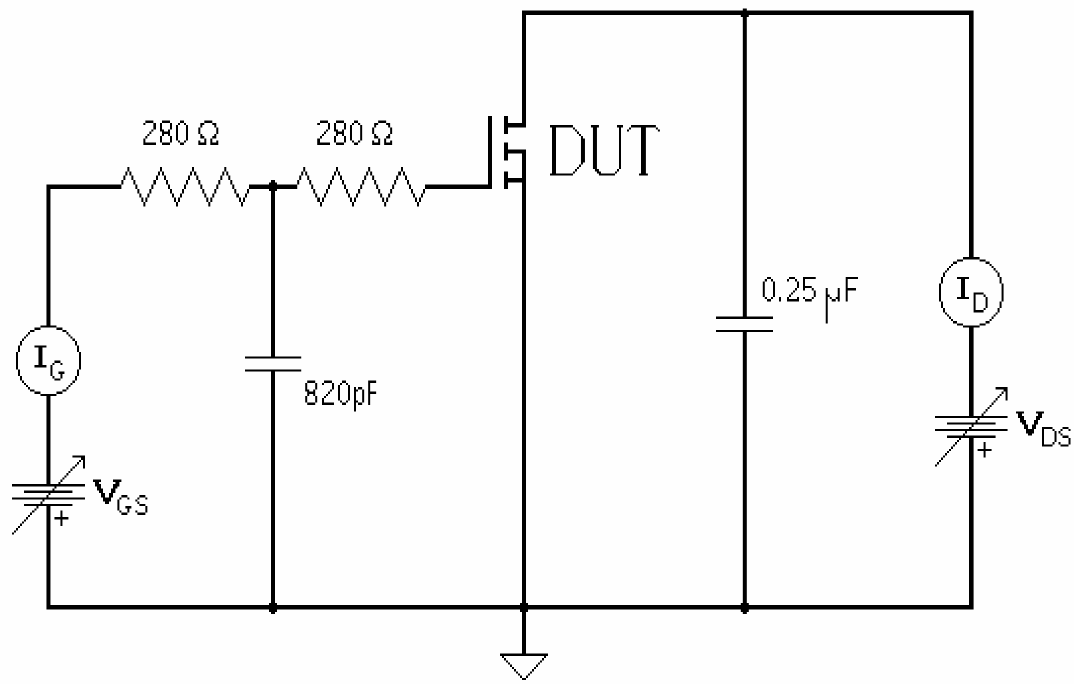
# Test Circuit

# Schematic

# Diagram

# Reference: MIL-STD-750, Method 1080

Details of Test Method can be reviewed from DSCC Website:
http://www.dscc.dla.mil/Downloads/MilSpec/Docs/MIL-STD-750/std750_1000.pdf




Test Circuit Schematic Diagram

# Appendix E

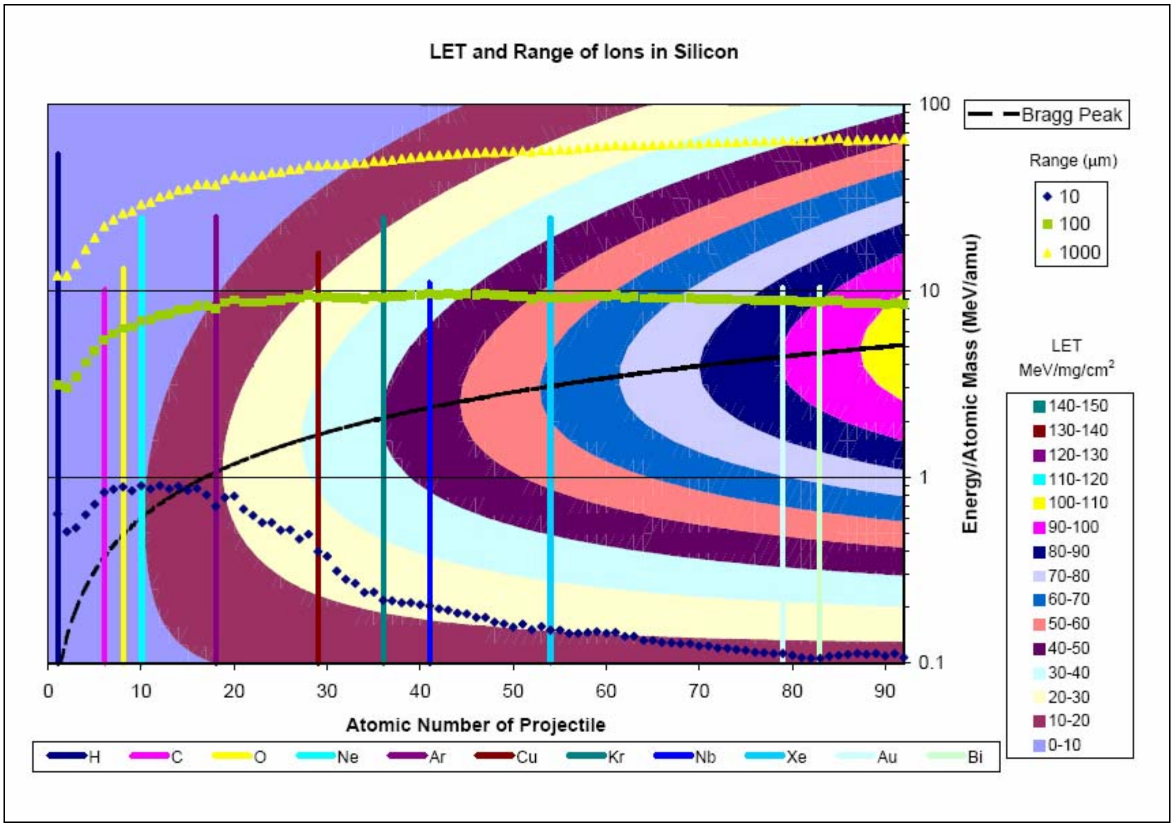
# TAMU K500 Cyclotron

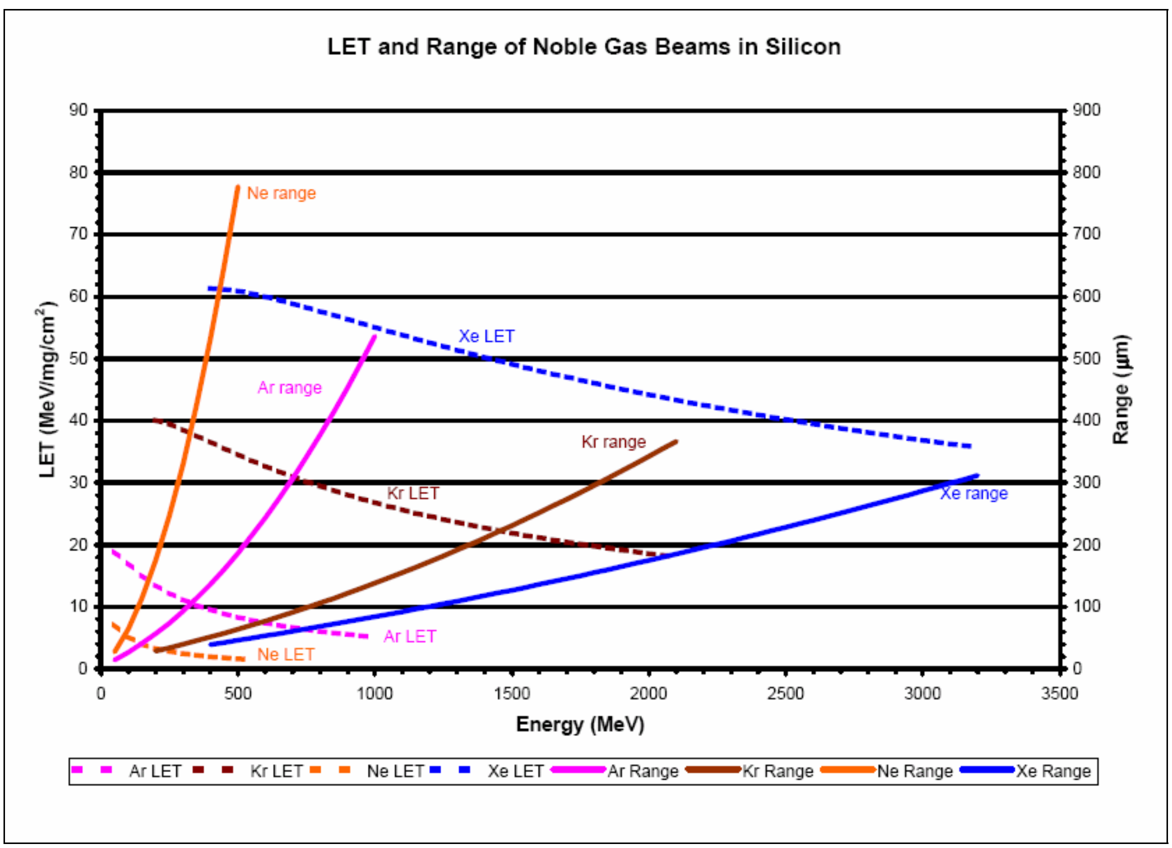
# Ion Species, Surface LET and Range

Cyclotron Institute · Texas A&M University
Radiation Effects Facility
# Available Beams

| Particle | A MeV | $LET_{init}$ (MeV/mg/cm$^2$) | $LET_{Bragg}$ (MeV/mg/cm$^2$) | $Range_{Bragg}$ (microns) |
|---|---|---|---|---|
| $^{20}Ne$ | 15 | 2.5 | 9.6 | 305 |
| $^{40}Ar$ | " | 7.7 | 20.1 | 220 |
| $^{63}Cu$ | " | 17.8 | 34.0 | 156 |
| $^{84}Kr$ | " | 25.4 | 41.4 | 154 |
| $^{109}Ag$ | " | 38.5 | 54.8 | 130 |
| $^{129}Xe$ | " | 47.3 | 63.4 | 127 |
| $^{141}Pr$ | " | 53.8 | 69.6 | 117 |
| $^{165}Ho$ | " | 64.3 | 79.2 | 112 |
| $^{181}Ta$ | " | 72.2 | 86.4 | 107 |
| $^{197}Au$ | " | 80.2 | 93.5 | 102 |
| $^{22}Ne$ | 24.8 | 1.7 | 9.7 | 790 |
| $^{40}Ar$ | " | 5.4 | 20.1 | 491 |
| $^{84}Kr$ | " | 19.3 | 41.4 | 315 |
| $^{129}Xe$ | " | 37.9 | 63.4 | 254 |
| proton | 40 | 0.012 | 0.58 | 8147 |
| $^{20}Ne$ | " | 1.2 | 9.7 | 1648 |
| $^{40}Ar$ | " | 3.8 | 20.1 | 1070 |
| $^{78}Kr$ | " | 14.2 | 41.4 | 601 |
| $^{16}O$ | 55.1 | 0.59 | 7.4 | 3607 |
| $^{36}Ar$ | " | 3.0 | 20.1 | 1665 |

Cyclotron Institute · Texas A&M University
Radiation Effects Facility
# Available Beams



International
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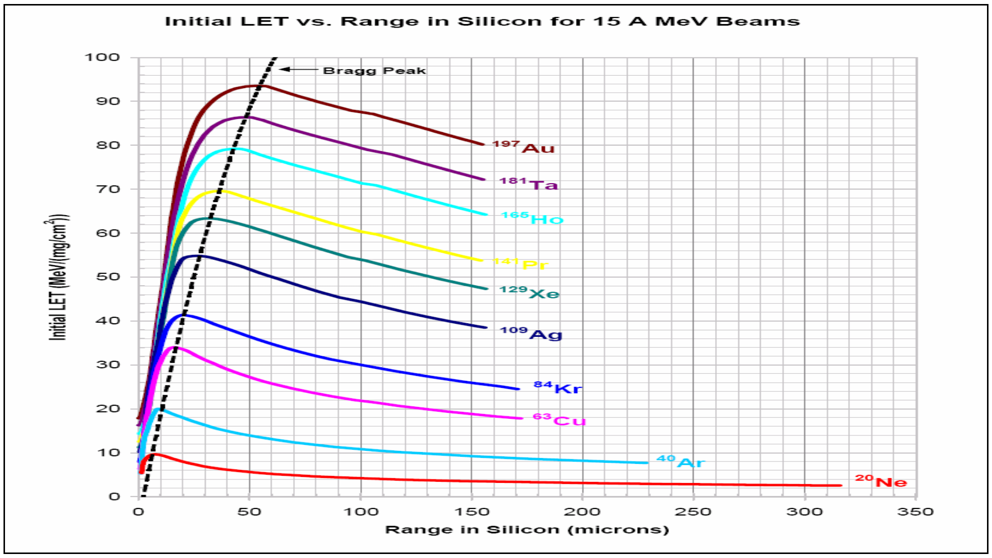
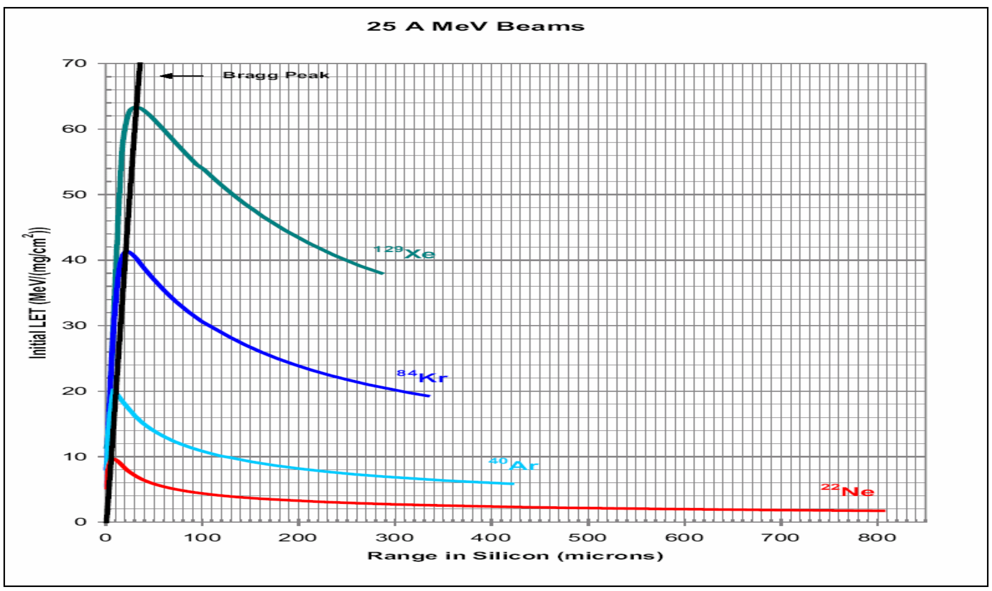
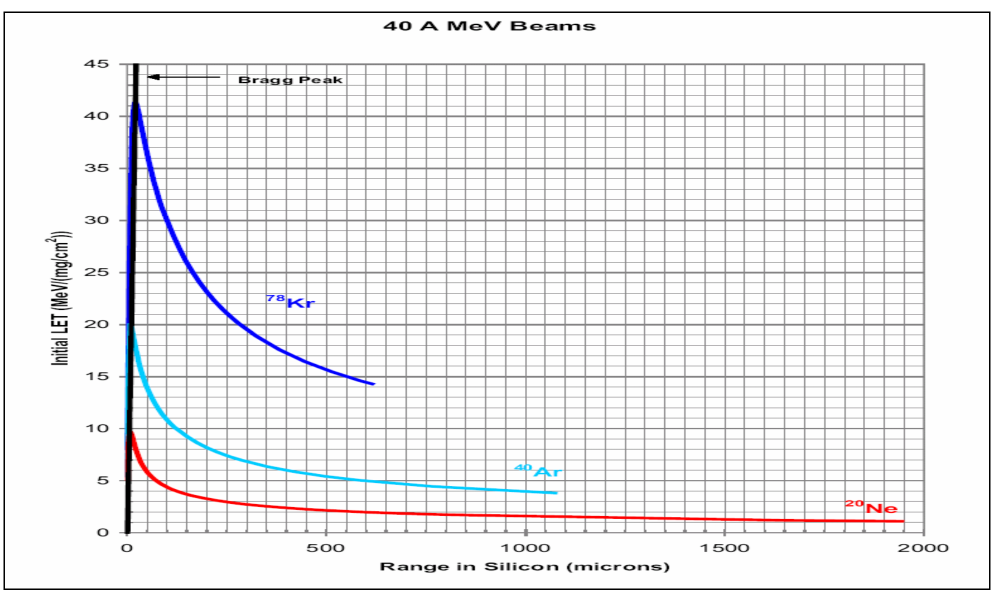
## Available Beams



# Appendix F

# Post-SEE

# Electrical Measurements

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RadHard MOSFET - R6, Hex 6, 250V, N-channel | | | | | | | | | | | | | |
| Expected Good Devices | | | | | | | | | | | | | | | |
| SEE-Failed Devices | | | Post - SEE Electricals Data | | | | | | | | | | | | |
| | | | | | | | | | | | | | Post-Electricals | | |
| | | Parameter | I GSSf | I GSSr | I DSS | BV DSS | V GS(th) | R DS(on) | | VSD | GFS | | I DSS | I GSSf | I GSSr |
| | | Conditions | VGS=20V VDS=0V | VGS=-20V VDS=0V | VDS=200V VGS=0V | IDSS=1mA | VDS=VGS ID=1mA | ID=56A VGS=12V | | IS=56A | ID=56A VDS=15V | | VDS=20V VGS=0V | VGS=20V VDS=0V | VGS=-V VDS=0V |
| | | Limits | 100nA Max | -100nA Max | 10µA Max | 250 V Min | 2 V to 4 V | < 61 mOhms | | 1.2 V Max | 27 Mhos Min | | 0.1µA Max | 100nA Max | 0nA Max |
| | | Unit | nA | nA | µA | V | V | mOhms | | V | Mhos | | µA | nA | nA |
| SEE Id | | Log Serial | | | | | | | | | | | | | |
| A2 | ER51915A (TAMU 04-30-2005) | | 6.76 | 2.01 | 2.802 | 280.3 | 3.168 | 35.53 | | 0.988 | 69.13 | | 0.007 | 2.04 | 0.00 |
| A3 | | | 6.80 | 1.94 | 2.821 | 279.1 | 3.136 | 34.80 | | 0.993 | 69.13 | | 0.007 | 2.07 | 0.00 |
| A5 | | | 6.79 | 2.05 | 2.752 | 281.7 | 3.125 | 34.85 | | 0.996 | 69.13 | | 0.007 | 2.00 | 0.00 |
| A6 | | | 6.86 | 2.06 | 2.789 | 285.0 | 3.131 | 36.73 | | 0.990 | 71.79 | | 0.007 | 1.97 | 0.00 |
| A7 | | | 6.80 | 1.99 | 2.825 | 280.1 | 3.183 | 36.55 | | 0.997 | 69.13 | | 0.007 | 2.18 | 0.00 |
| A8 | | | 6.64 | 2.02 | 2.799 | 279.0 | 3.160 | 34.94 | | 0.997 | 68.29 | | 0.007 | 1.98 | 0.00 |
| A9 | | | 6.88 | 2.04 | 4.544 | 261.2 | 3.132 | 34.26 | | 0.995 | 69.13 | | 0.007 | 1.97 | 0.00 |
| A10 | | | 7.08 | 2.09 | 2.893 | 272.9 | 3.216 | 33.64 | | 0.996 | 61.53 | | 0.007 | 2.02 | 0.00 |
| A11 | | | 6.70 | 1.97 | 2.684 | 278.9 | 3.242 | 35.71 | | 0.999 | 57.14 | | 0.007 | 1.96 | 0.00 |
| A12 | | | 6.78 | 1.89 | 2.843 | 272.4 | 3.234 | 33.53 | | 0.989 | 62.22 | | 0.007 | 1.90 | 0.00 |
| A14 | | | 6.94 | 1.93 | 2.802 | 275.0 | 3.155 | 34.35 | | 0.993 | 70.00 | | 0.007 | 2.03 | 0.00 |
| A15 | | | 6.81 | 2.02 | 2.911 | 274.4 | 3.199 | 34.51 | | 0.994 | 55.44 | | 0.007 | 1.98 | 0.00 |
| A16 | | | 6.84 | 2.01 | 2.902 | 274.1 | 3.193 | 34.42 | | 0.993 | 57.14 | | 0.007 | 2.02 | 0.00 |
| A17 | | | 6.99 | 2.05 | 2.843 | 274.9 | 3.179 | 33.10 | | 0.989 | 65.11 | | 0.007 | 2.03 | 0.00 |
| A18 | | | 7.07 | 2.05 | 2.601 | 279.7 | 3.068 | 35.39 | | 0.992 | 66.66 | | 0.007 | 2.01 | 0.00 |
| A19 | | | 6.71 | 1.96 | 2.570 | 279.7 | 3.202 | 35.10 | | 0.993 | 68.29 | | 0.007 | 1.92 | 0.00 |
| A20 | | | 6.80 | 2.05 | 2.635 | 278.6 | 3.216 | 35.87 | | 1.000 | 63.63 | | 0.007 | 1.98 | 0.00 |
| A22 | | | 6.85 | 2.01 | 2.819 | 278.6 | 3.226 | 36.75 | | 0.999 | 48.27 | | 0.007 | 2.04 | 0.00 |
| A23 | | | 6.85 | 2.01 | 2.644 | 279.2 | 3.239 | 36.21 | | 0.996 | 52.33 | | 0.007 | 1.94 | 0.00 |
| A24 | | | 6.91 | 2.00 | 2.933 | 274.6 | 3.239 | 34.16 | | 0.998 | 60.86 | | 0.007 | 1.97 | 0.00 |
| A27 | | | 6.82 | 1.96 | 2.799 | 280.9 | 3.239 | 36.03 | | 0.996 | 63.63 | | 0.007 | 1.97 | 0.00 |
| A28 | | | 6.93 | 1.96 | 2.876 | 280.6 | 3.221 | 35.69 | | 0.998 | 65.11 | | 0.007 | 1.92 | 0.00 |
| A31 | | | 6.59 | 1.96 | 2.771 | 282.7 | 3.266 | 36.69 | | 0.998 | 63.63 | | 0.007 | 1.96 | 0.00 |
| A35 | | | 6.85 | 1.98 | 2.926 | 277.3 | 3.108 | 33.91 | | 0.990 | 70.00 | | 0.007 | 2.01 | 0.00 |
| A36 | | | 6.99 | 2.07 | 2.682 | 281.4 | 3.265 | 35.64 | | 0.990 | 65.11 | | 0.007 | 2.29 | 0.00 |
| A37 | | | 6.91 | 1.95 | 2.505 | 283.1 | 3.207 | 35.91 | | 0.991 | 65.88 | | 0.007 | 2.06 | 0.00 |