

Front Side Data

| Strip | Current(nA) | | |
|-------|-------------|-------|--|
| | DEP | 2*Dep | |
| 1 | 1.80 | 3.20 | |
| 2 | 1.00 | 2.00 | |
| 3 | 1.30 | 1.80 | |
| 4 | 1.40 | 1.90 | |
| 5 | 1.00 | 9.00 | |
| 6 | 1.00 | 1.70 | |
| 7 | 1.80 | 2.30 | |
| 8 | 0.90 | 1.50 | |
| 9 | 1.10 | 1.80 | |
| 10 | 1.40 | 1.80 | |
| 11 | 1.00 | 1.00 | |
| 12 | 0.40 | 1.70 | |
| 13 | 0.40 | 1.20 | |
| 14 | 0.20 | 1.20 | |
| 15 | 0.80 | 1.60 | |
| 16 | 0.20 | 1.50 | |
| total | 15.70 | 35.20 | |

Wafer No.: 2892-27

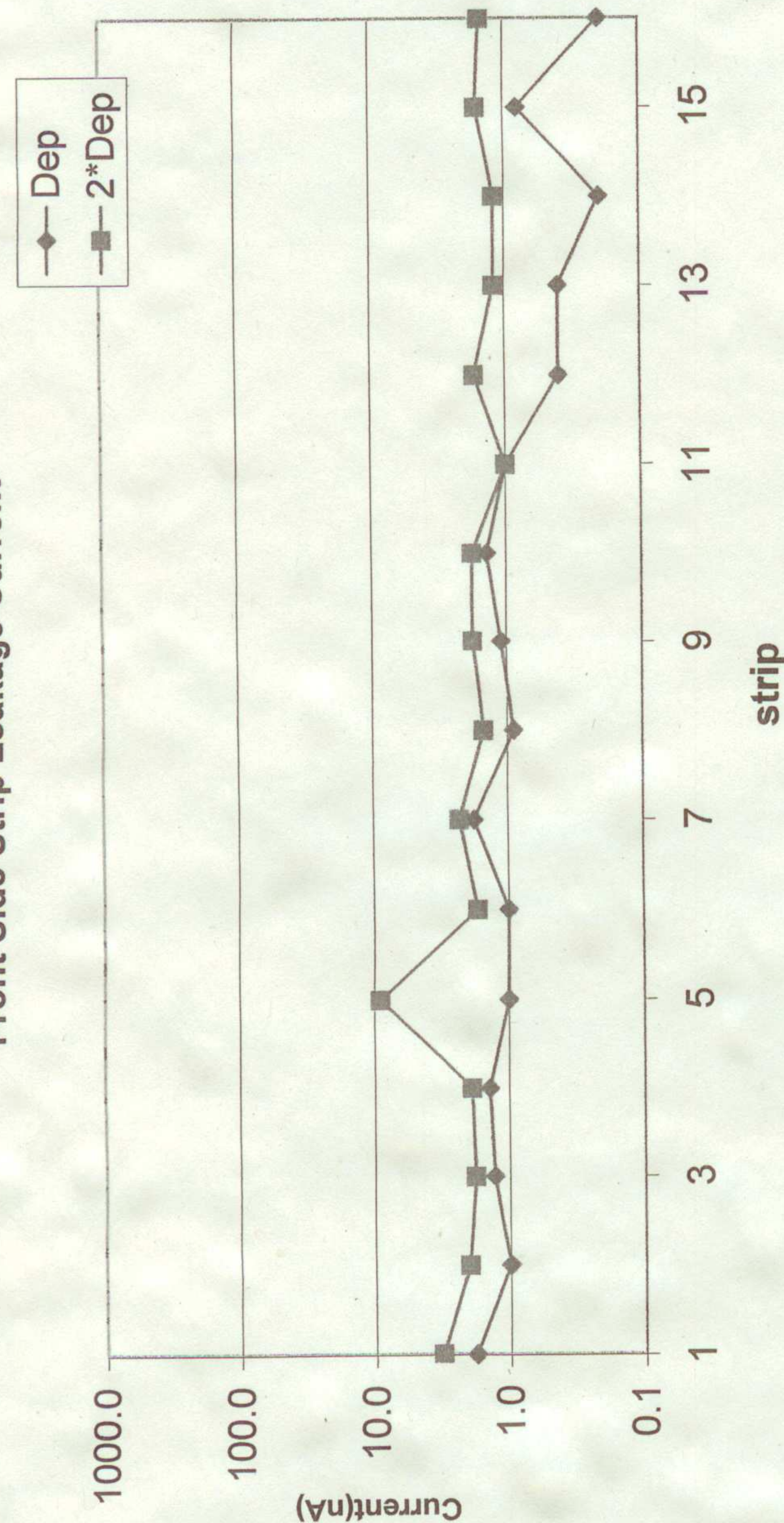
Thickness: 138um

Depletion: 15Volts

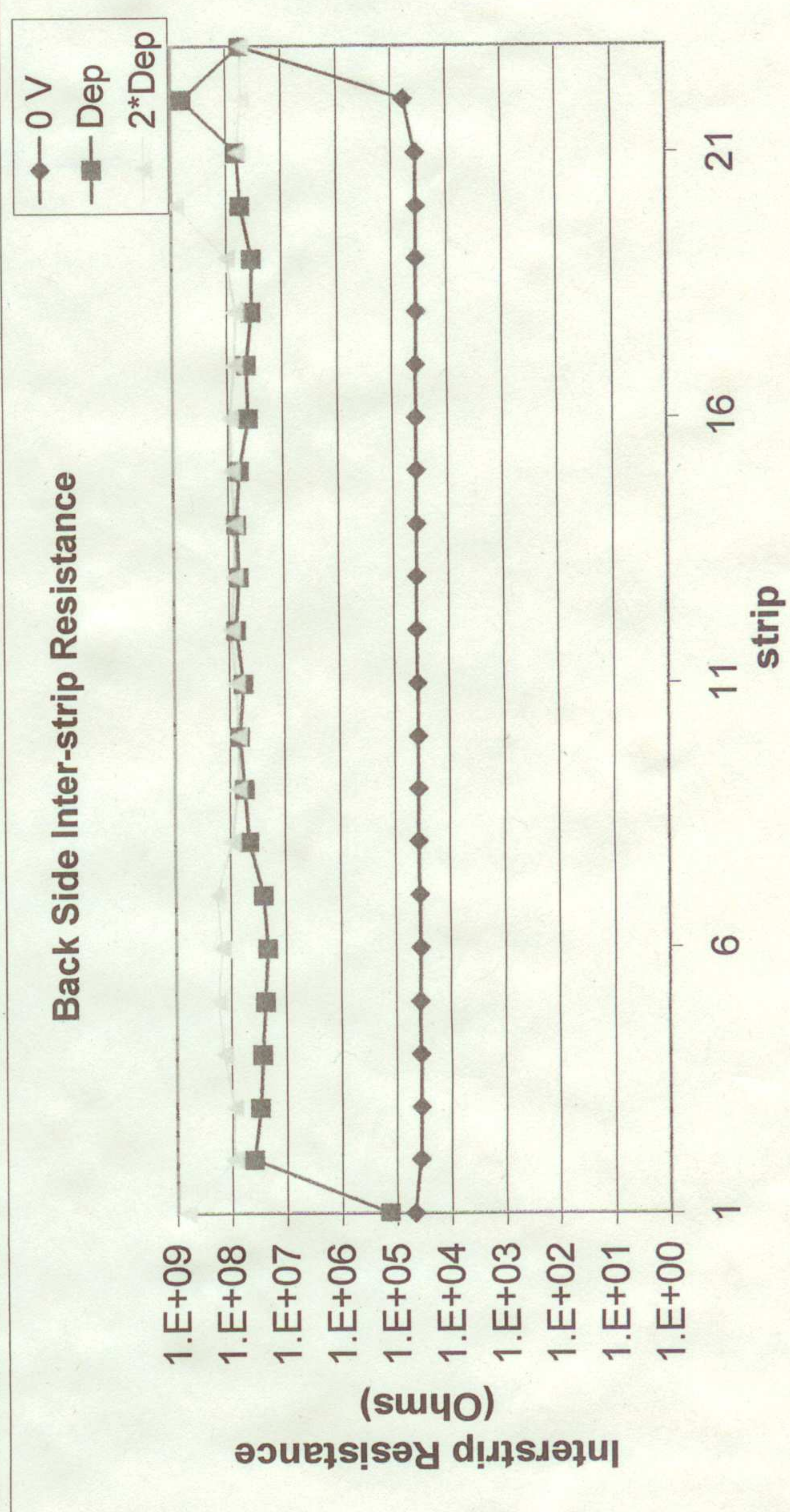
Back Side Data

| Strip | Back Resistance (Ω) | | |
|-------|---------------------|---------|---------|
| | 0V | DEP | 2*Dep |
| 1 | 4.8E+04 | 1.4E+05 | 6.8E+08 |
| 2 | 3.7E+04 | 3.9E+07 | 9.4E+07 |
| 3 | 3.6E+04 | 3.0E+07 | 9.3E+07 |
| 4 | 3.6E+04 | 2.7E+07 | 1.4E+08 |
| 5 | 3.6E+04 | 2.4E+07 | 1.7E+08 |
| 6 | 3.6E+04 | 2.2E+07 | 1.5E+08 |
| 7 | 3.7E+04 | 2.6E+07 | 1.8E+08 |
| 8 | 3.8E+04 | 4.5E+07 | 9.4E+07 |
| 9 | 3.8E+04 | 5.4E+07 | 7.2E+07 |
| 10 | 3.8E+04 | 6.6E+07 | 7.1E+07 |
| 11 | 3.9E+04 | 5.6E+07 | 7.7E+07 |
| 12 | 3.8E+04 | 7.4E+07 | 9.3E+07 |
| 13 | 3.8E+04 | 6.6E+07 | 8.1E+07 |
| 14 | 3.8E+04 | 7.1E+07 | 7.8E+07 |
| 15 | 3.7E+04 | 6.3E+07 | 8.7E+07 |
| 16 | 3.8E+04 | 4.3E+07 | 9.4E+07 |
| 17 | 3.7E+04 | 4.5E+07 | 7.5E+07 |
| 18 | 3.7E+04 | 3.7E+07 | 7.0E+07 |
| 19 | 3.7E+04 | 3.5E+07 | 1.0E+08 |
| 20 | 3.6E+04 | 5.6E+07 | 8.4E+08 |
| 21 | 3.7E+04 | 6.5E+07 | 6.4E+07 |
| 22 | 6.0E+04 | 6.3E+08 | 5.4E+07 |
| 23 | 5.7E+07 | 5.5E+07 | 5.4E+07 |

Front Side Strip Leakage Current



Back Side Inter-strip Resistance

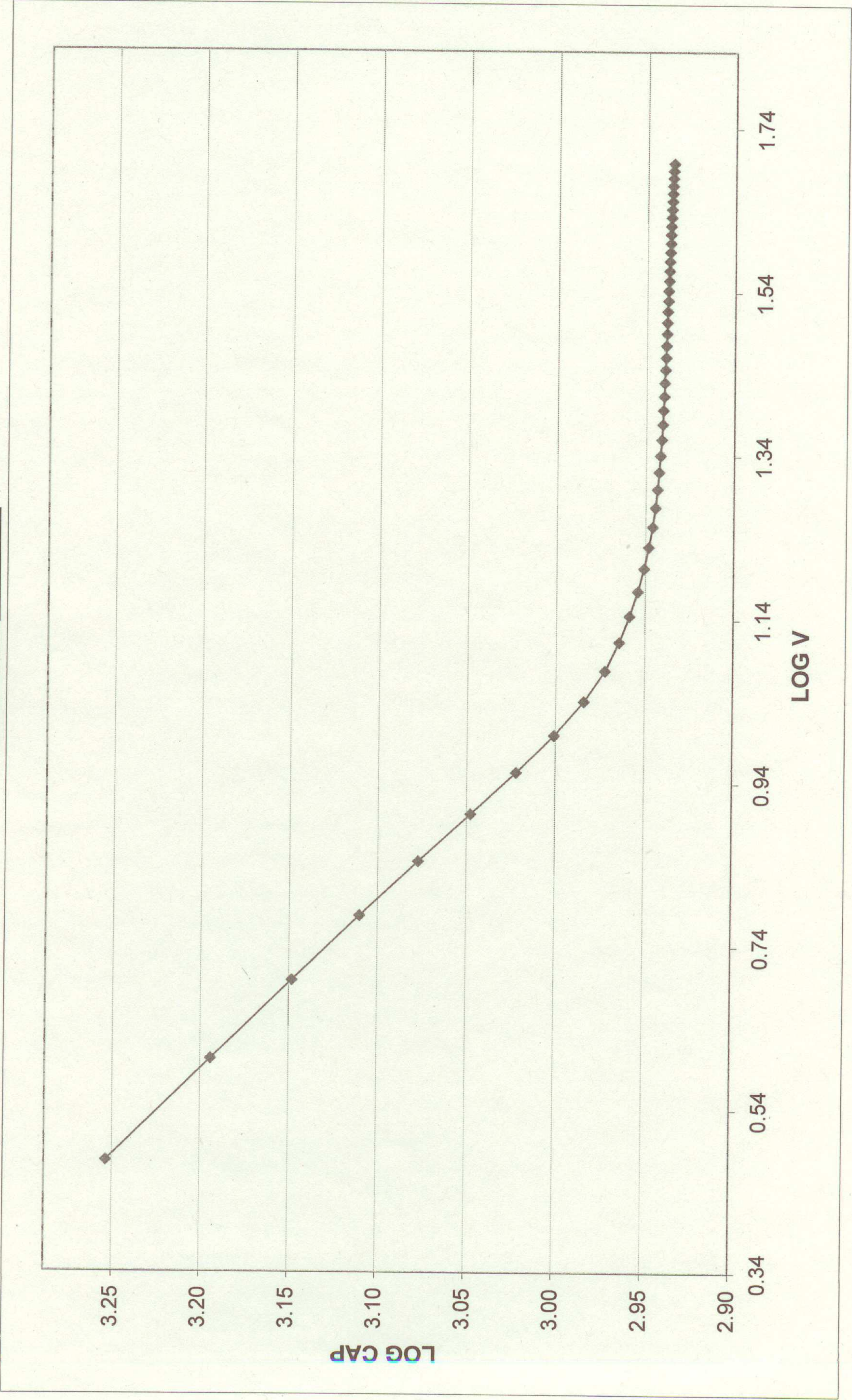


Depletion Plot

QQQ2-140

Wafer No.: 2892-27

Thickness: 138 μm
Depletion: 15 Volts



Resolution Plot

DESIGN QQQ2-140

Wafer No.: 2892-27 Thickness: 138 um

JUNCTION

DET LINE: 59.9 KeV
SYSTEM: 42.7 KeV
CAL: 42 KeV

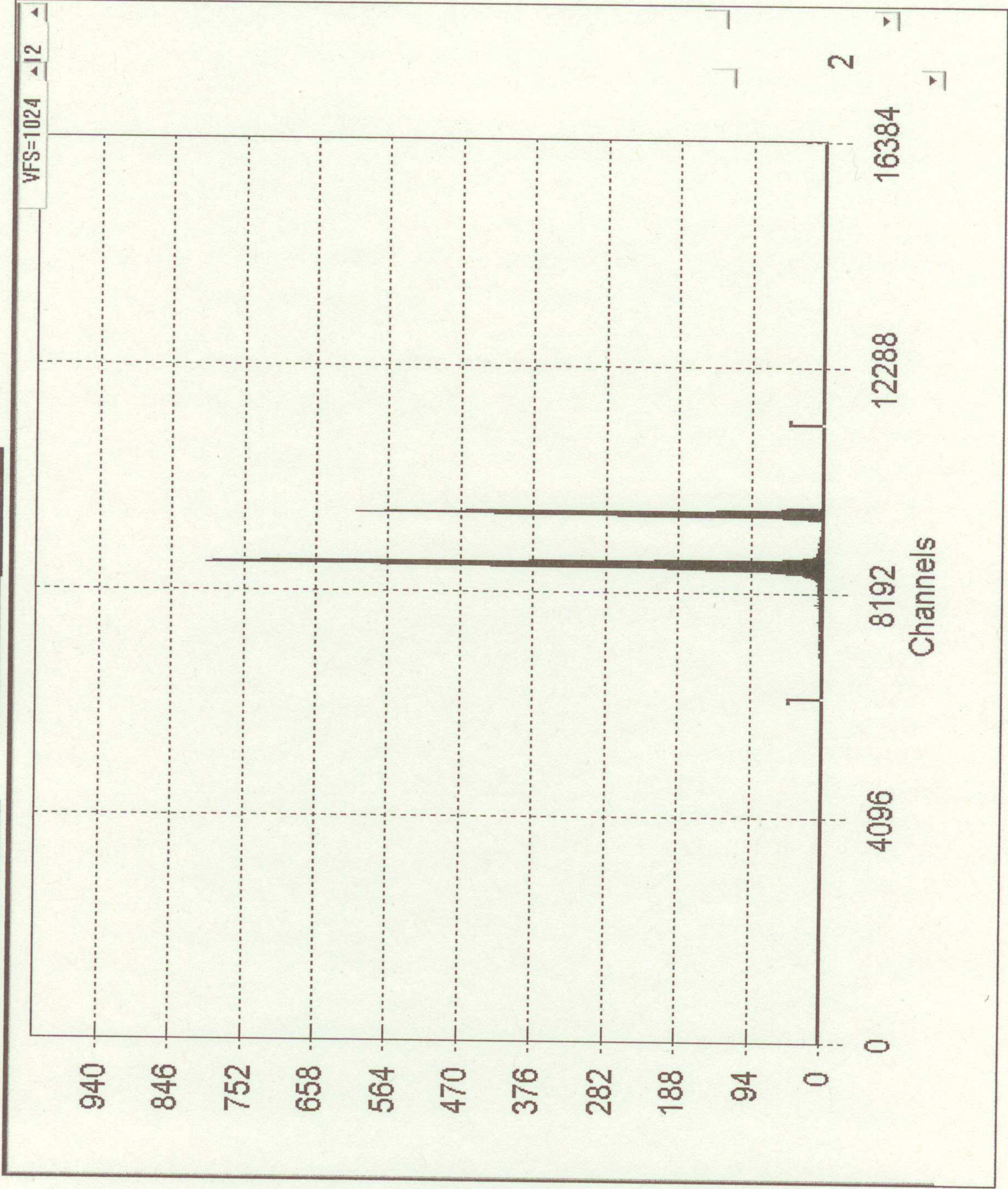
OHMIC

DET LINE: 63 KeV
SYSTEM: 40.5 KeV
CALC: 48.3 KeV

Source
Am 241

Rise Time
1

Flat Top
0



BIAS VOLTS= 30 V Leakage 26 nA

Front Side Data

| Strip | Current(nA) | | |
|-------|-------------|-------|-------|
| | DEP | 2*Dep | |
| 1 | 1.80 | 12.00 | |
| 2 | 0.60 | 5.80 | |
| 3 | 1.00 | 1.90 | |
| 4 | 1.10 | 1.80 | |
| 5 | 0.50 | 1.50 | |
| 6 | 0.50 | 1.20 | |
| 7 | 1.50 | 1.90 | |
| 8 | 2.10 | 3.50 | |
| 9 | 2.20 | 3.20 | |
| 10 | 0.90 | 1.50 | |
| 11 | 0.90 | 1.20 | |
| 12 | 0.90 | 1.70 | |
| 13 | 0.90 | 1.30 | |
| 14 | 0.70 | 1.50 | |
| 15 | 0.20 | 1.00 | |
| 16 | 5.30 | 10.40 | |
| Total | | 21.10 | 51.40 |

Wafer No.: 2892-4

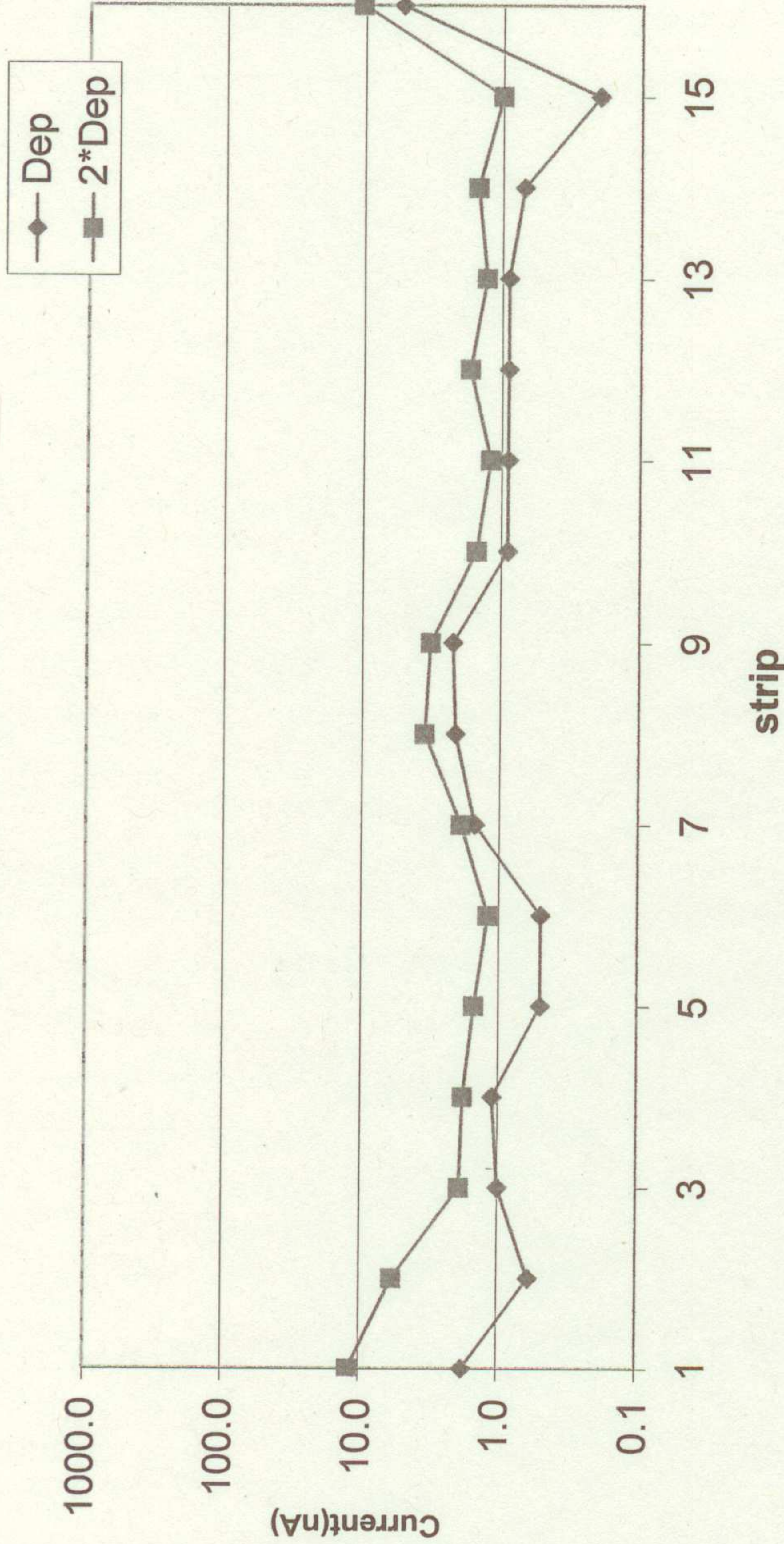
Thickness: 141um

Depletion: 15Volts

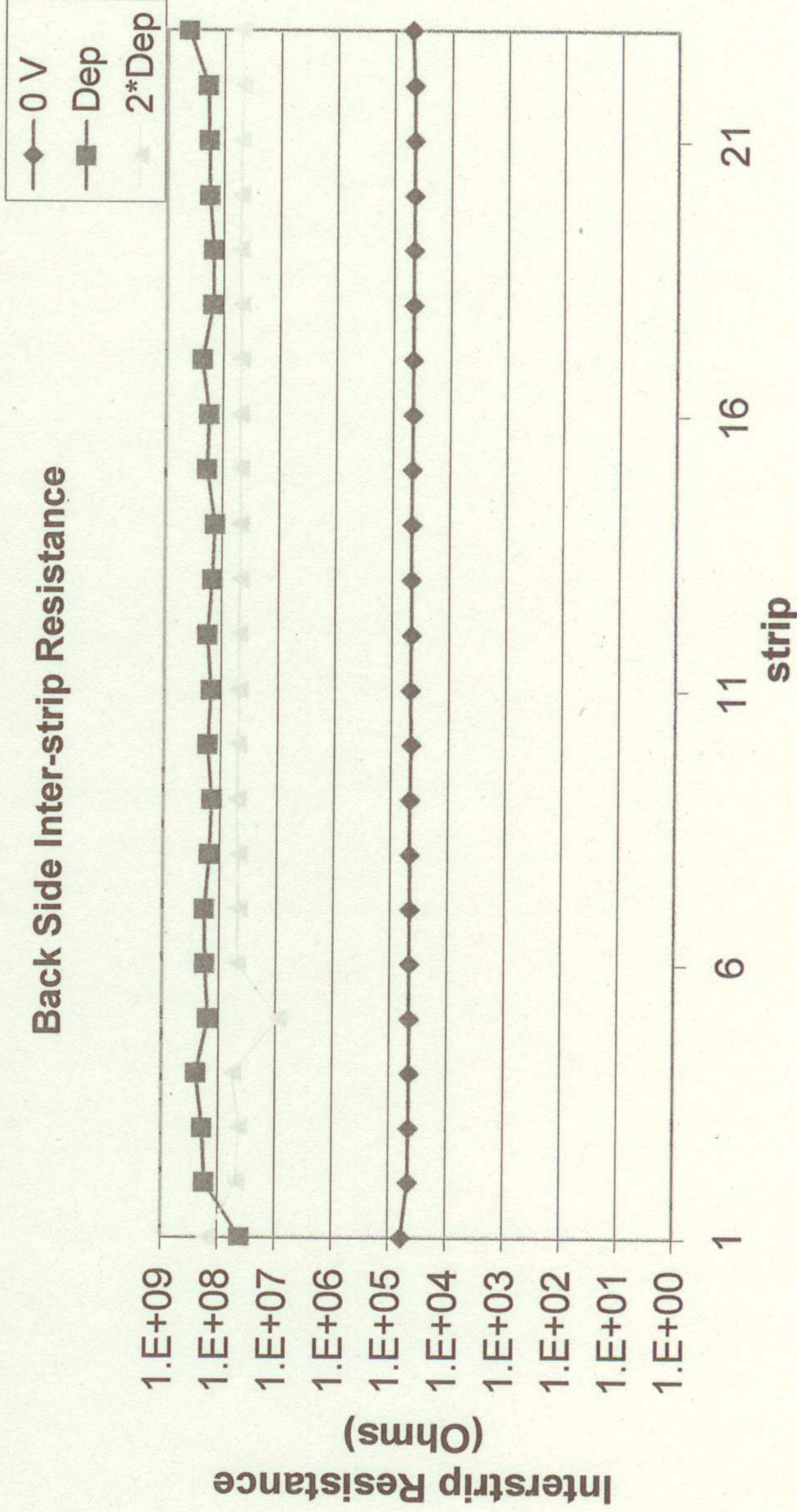
Back Side Data

| Strip | Back Resistance (Ω) | | |
|-------|---------------------|---------|---------|
| | 0V | DEP | 2*Dep |
| 1 | 6.0E+04 | 4.1E+07 | 1.6E+08 |
| 2 | 4.6E+04 | 1.7E+08 | 4.8E+07 |
| 3 | 4.5E+04 | 1.9E+08 | 4.3E+07 |
| 4 | 4.5E+04 | 2.5E+08 | 5.6E+07 |
| 5 | 4.5E+04 | 1.5E+08 | 8.9E+06 |
| 6 | 4.5E+04 | 1.8E+08 | 4.9E+07 |
| 7 | 4.5E+04 | 1.8E+08 | 4.7E+07 |
| 8 | 4.6E+04 | 1.5E+08 | 4.8E+07 |
| 9 | 4.6E+04 | 1.4E+08 | 5.0E+07 |
| 10 | 4.5E+04 | 1.7E+08 | 5.0E+07 |
| 11 | 4.6E+04 | 1.5E+08 | 4.9E+07 |
| 12 | 4.5E+04 | 1.7E+08 | 5.0E+07 |
| 13 | 4.6E+04 | 1.4E+08 | 4.7E+07 |
| 14 | 4.6E+04 | 1.3E+08 | 4.8E+07 |
| 15 | 4.6E+04 | 1.9E+08 | 4.9E+07 |
| 16 | 4.5E+04 | 1.7E+08 | 5.1E+07 |
| 17 | 4.6E+04 | 2.3E+08 | 4.9E+07 |
| 18 | 4.6E+04 | 1.5E+08 | 4.9E+07 |
| 19 | 4.5E+04 | 1.5E+08 | 5.1E+07 |
| 20 | 4.5E+04 | 1.8E+08 | 5.1E+07 |
| 21 | 4.5E+04 | 1.8E+08 | 5.0E+07 |
| 22 | 4.5E+04 | 1.9E+08 | 4.8E+07 |
| 23 | 4.9E+04 | 4.2E+08 | 5.0E+07 |

Front Side Strip Leakage Current



Back Side Inter-strip Resistance

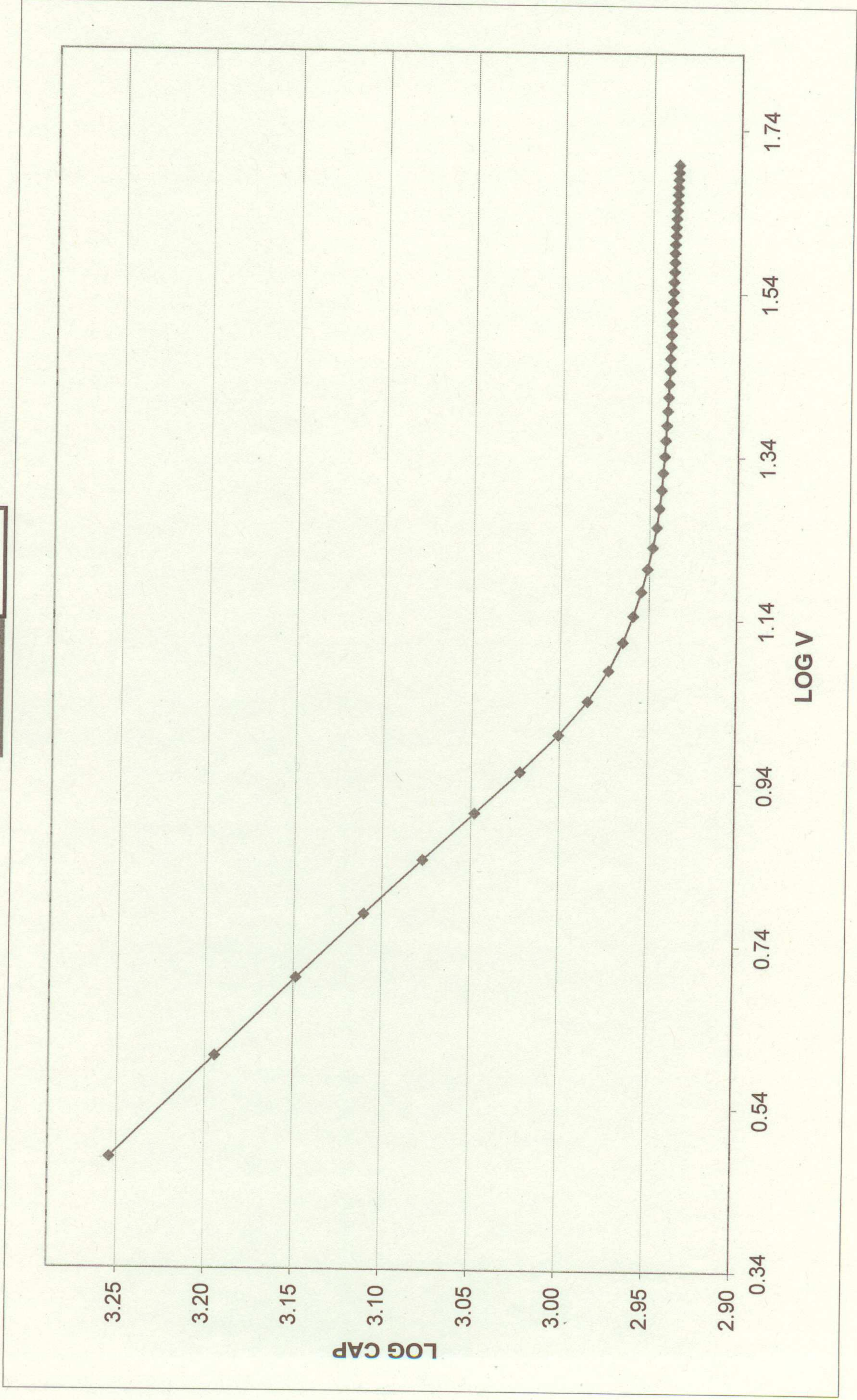


Depletion Plot

QQQ2-140

Wafer No.: 2892-4

Thickness: 141 μm
Depletion: 15 Volts



Resolution Plot

DESIGN QQQ2-140

Wafer No.: 2892-4 Thickness: 141 um

JUNCTION

DET LINE: 53.9 KeV
SYSTEM: 35.7 KeV
CAL: 40.4 KeV

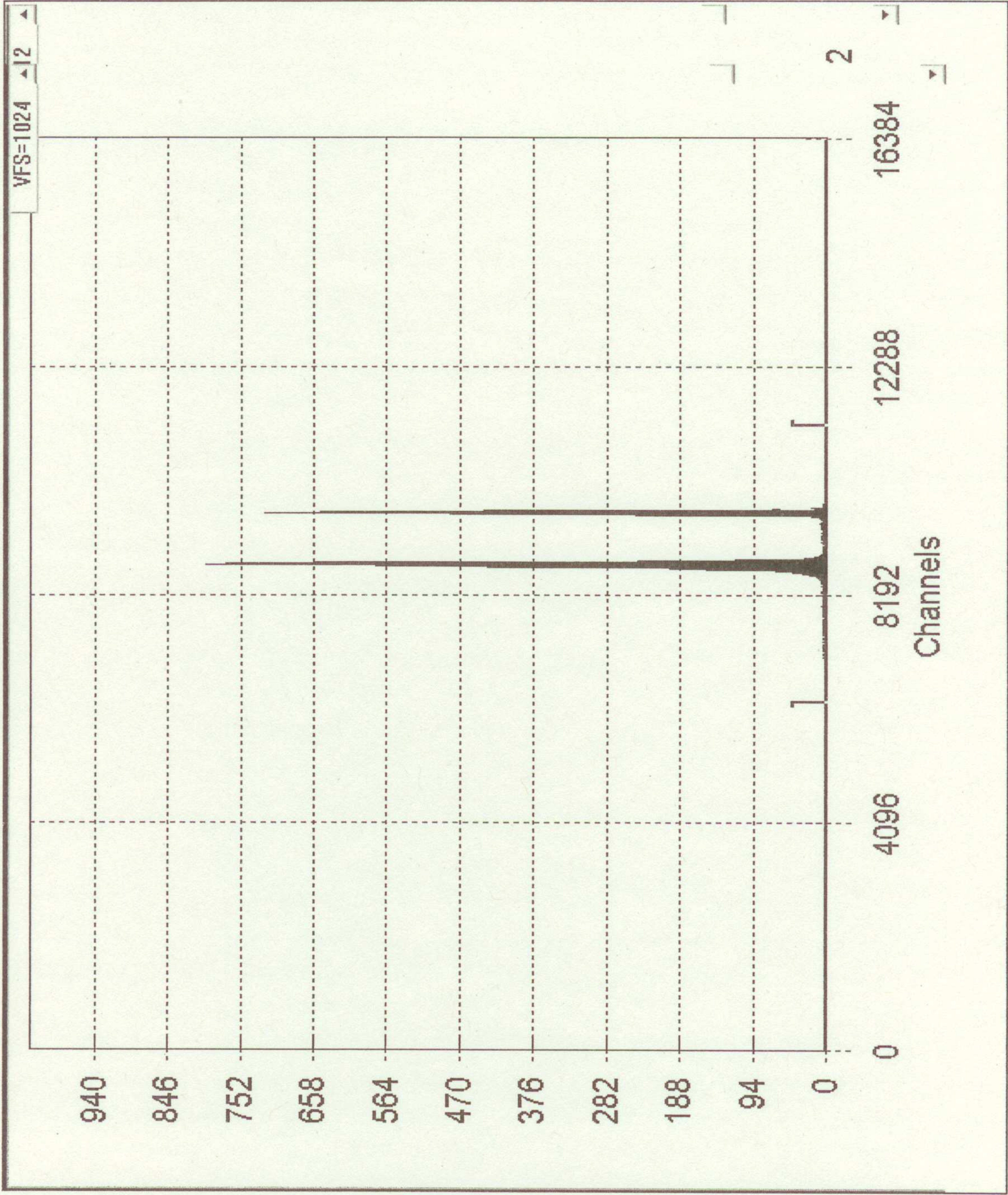
OHMIC

DET LINE: 58.2 KeV
SYSTEM: 36.9 KeV
CALC: 45.1 KeV

Source
Am 241

Rise Time
1

Flat Top
0



BIAS VOLTS= 30 V

Leakage 34 nA

Front Side Data

| Strip | Current(nA) | | |
|-------|-------------|-------|--|
| | DEP | 2*Dep | |
| 1 | 3.00 | 3.90 | |
| 2 | 3.60 | 4.00 | |
| 3 | 3.00 | 3.80 | |
| 4 | 1.20 | 1.70 | |
| 5 | 0.40 | 1.50 | |
| 6 | 2.20 | 2.80 | |
| 7 | 1.30 | 1.60 | |
| 8 | 1.60 | 3.10 | |
| 9 | 0.50 | 1.10 | |
| 10 | 0.80 | 1.50 | |
| 11 | 0.70 | 1.50 | |
| 12 | 1.20 | 7.80 | |
| 13 | 0.70 | 1.60 | |
| 14 | 0.80 | 3.00 | |
| 15 | 0.60 | 1.50 | |
| 16 | 0.90 | 1.70 | |
| total | 22.50 | 42.10 | |

Wafer No.: 2892-10

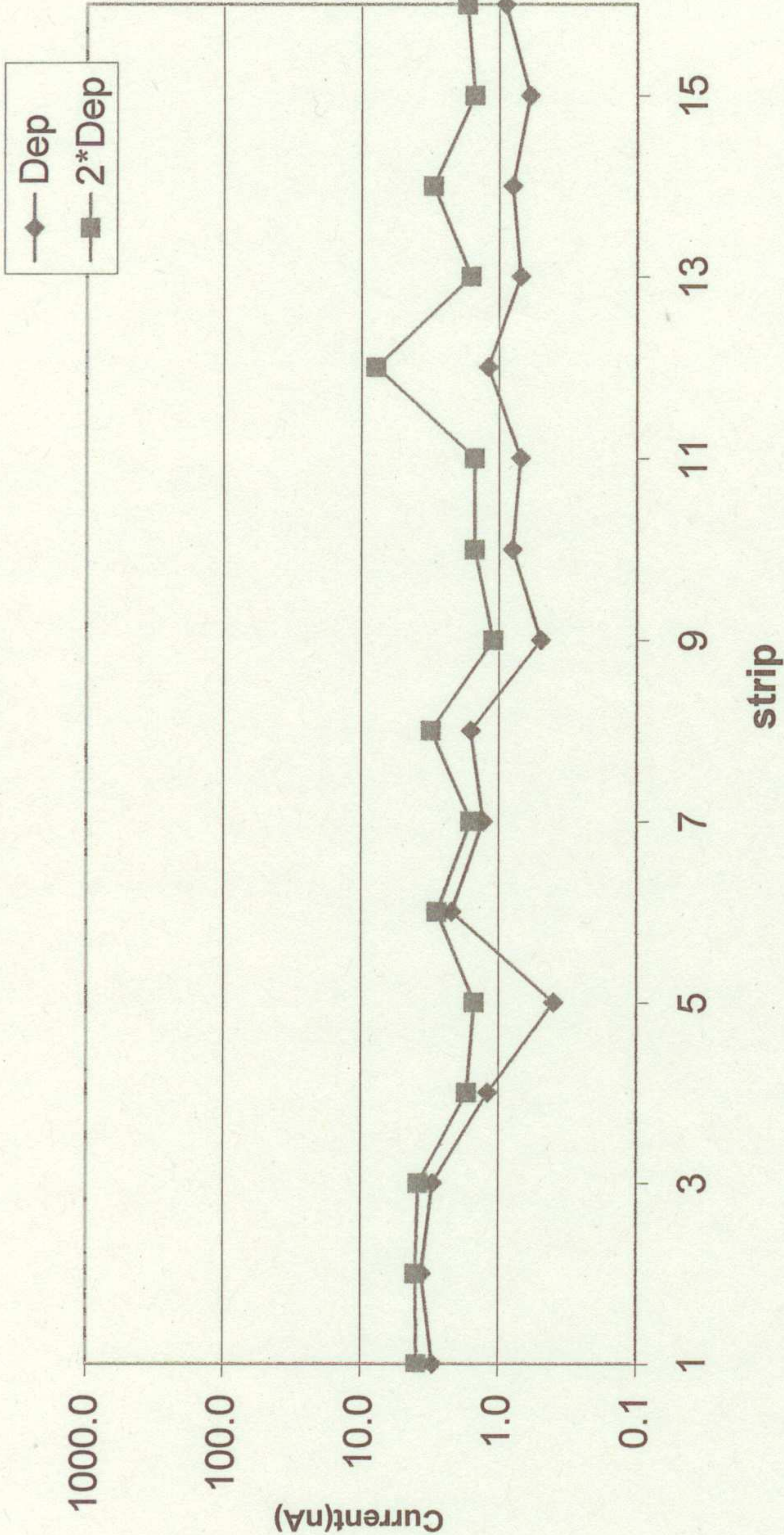
Thickness: 138um

Depletion: 14

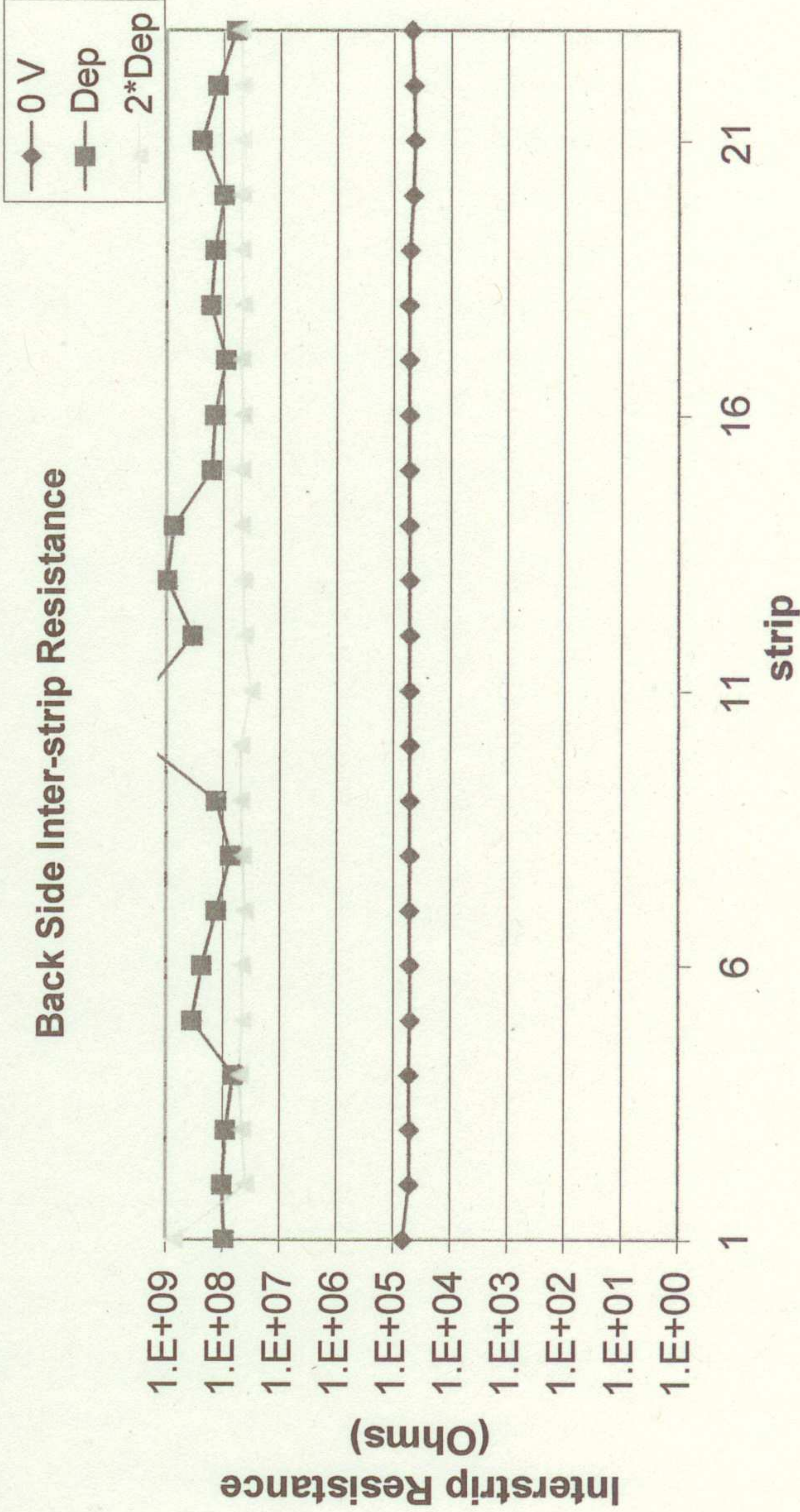
Volts

Back Side Data

Front Side Strip Leakage Current



Back Side Inter-strip Resistance

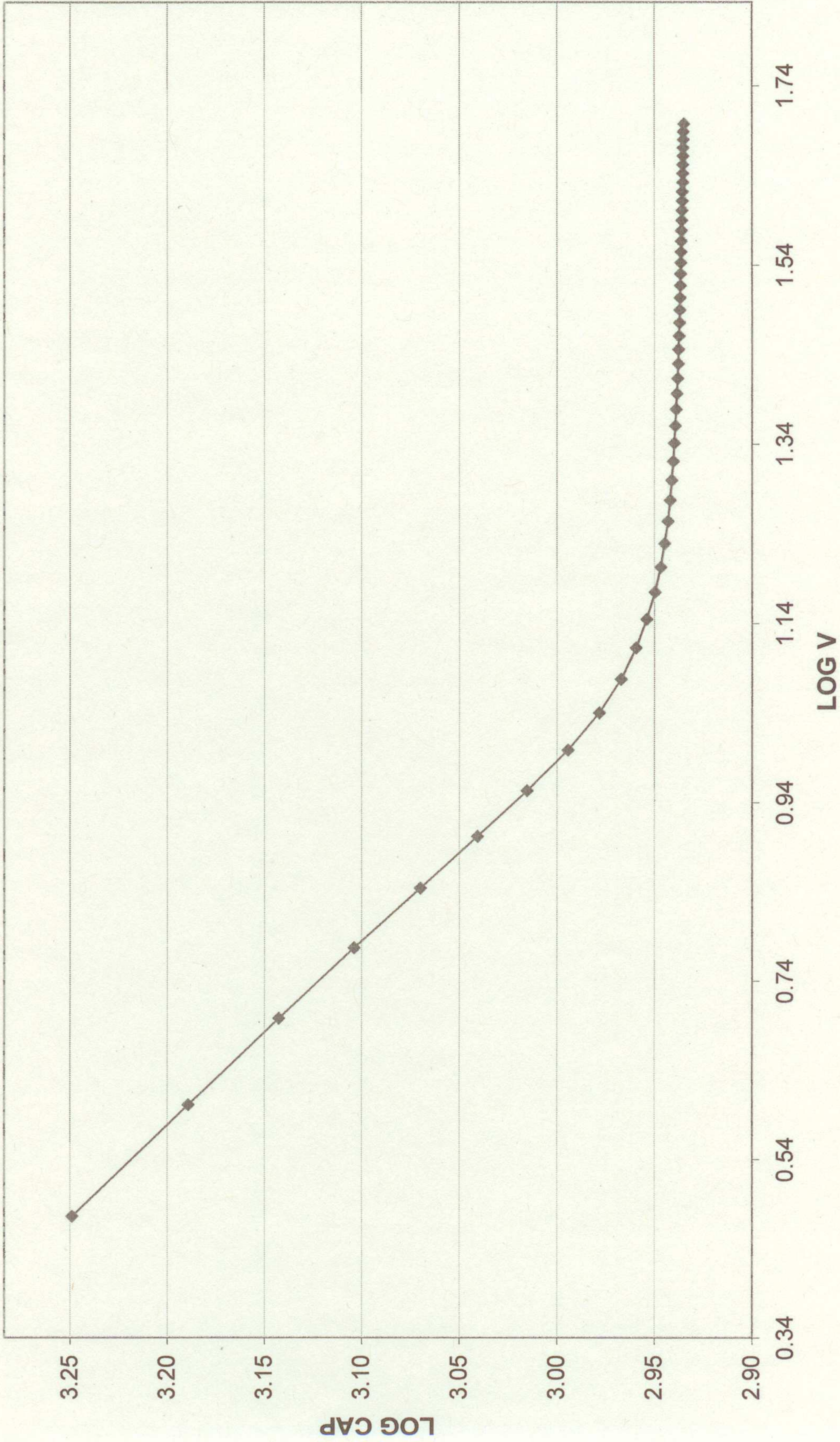


Depletion Plot

QQQ2-140

Wafer No.: 2892-10

Thickness: 138 μm
Depletion: 14 Volts



Resolution Plot

DESIGN QQQ2-140

Wafer No.: 2892-10 Thickness: 138 um

JUNCTION

DET LINE: 62.4 KeV
SYSTEM: 44.5 KeV
CAL: 43.7 KeV

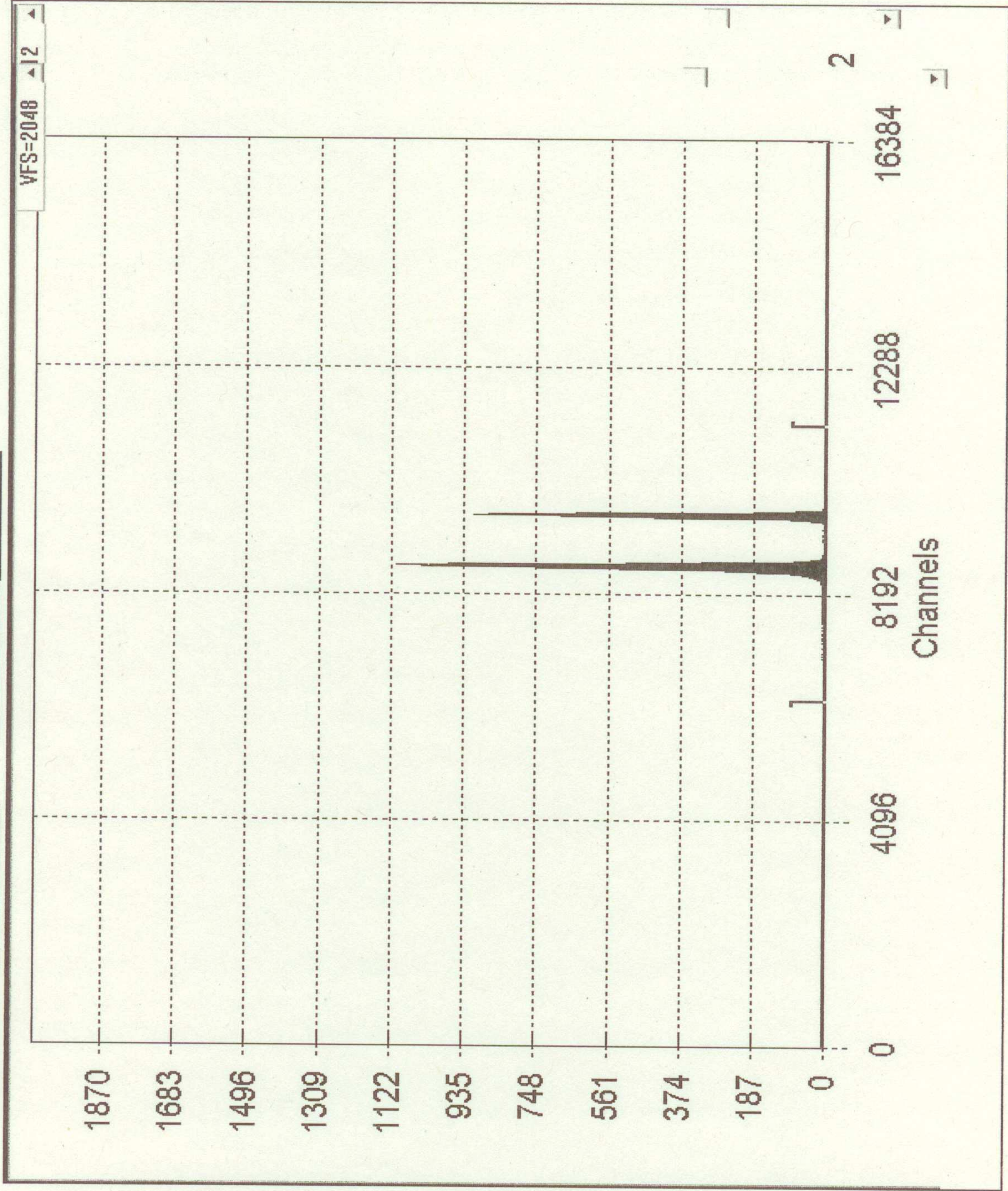
OHMIC

DET LINE: 66.3 KeV
SYSTEM: 44.5 KeV
CALC: 49.1 KeV

Source
Am 241

Rise Time
1

Flat Top
0



BIAS VOLTS= 30 V Leakage 30 nA

Front Side Data

| Strip | Current(nA) | | |
|-------|-------------|-------|--|
| | DEP | 2*Dep | |
| 1 | 1.60 | 9.40 | |
| 2 | 1.10 | 1.80 | |
| 3 | 1.20 | 1.90 | |
| 4 | 0.90 | 1.50 | |
| 5 | 1.10 | 1.80 | |
| 6 | 0.90 | 1.20 | |
| 7 | 0.90 | 1.40 | |
| 8 | 0.90 | 1.50 | |
| 9 | 1.40 | 1.90 | |
| 10 | 2.70 | 3.00 | |
| 11 | 1.10 | 1.70 | |
| 12 | 0.60 | 1.00 | |
| 13 | 0.50 | 1.80 | |
| 14 | 0.60 | 1.80 | |
| 15 | 0.70 | 1.80 | |
| 16 | 1.60 | 2.30 | |
| total | 17.80 | 35.80 | |

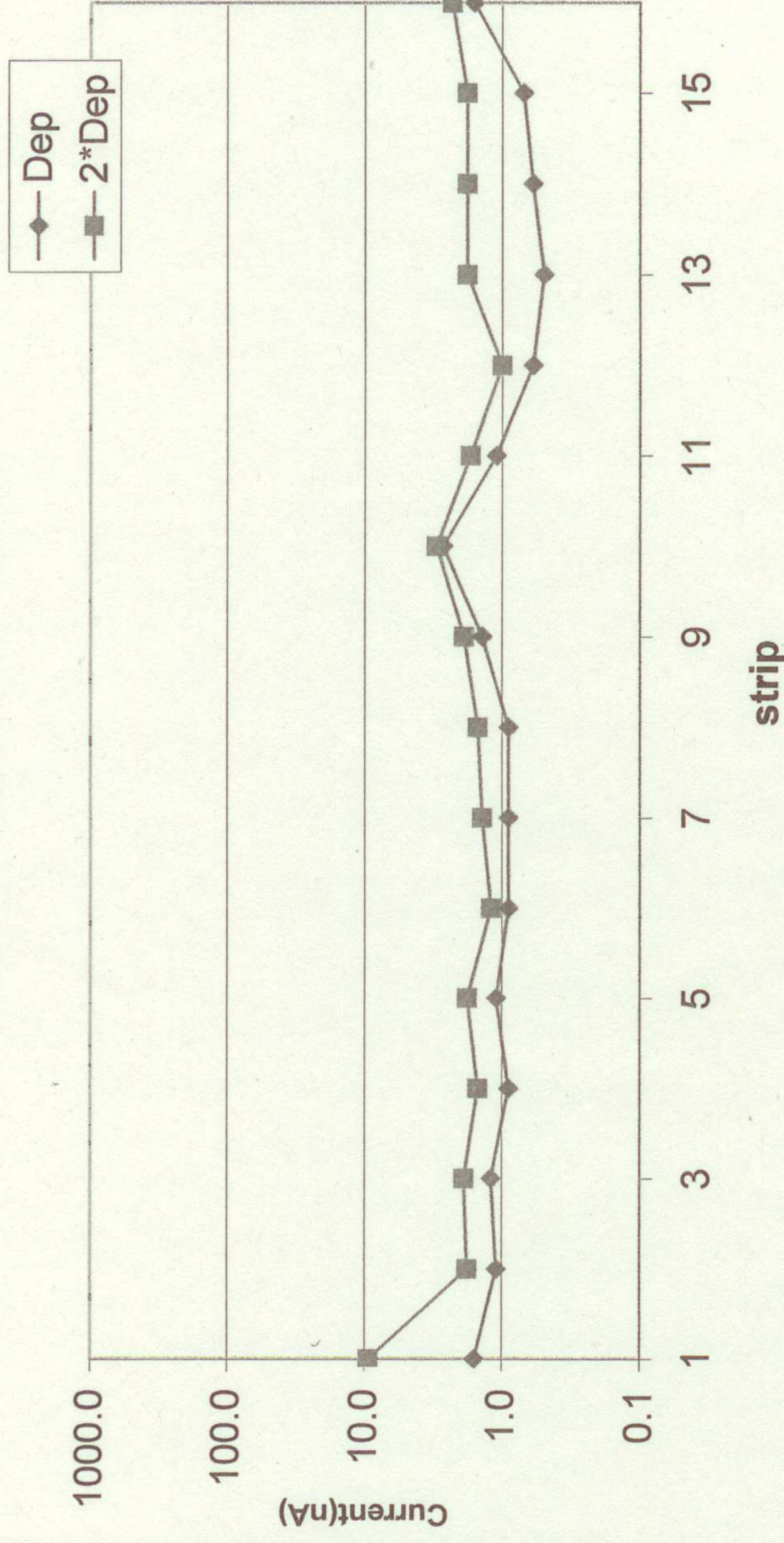
Wafer No.: 2892-3

Thickness: 138um

Depletion: 14Volts

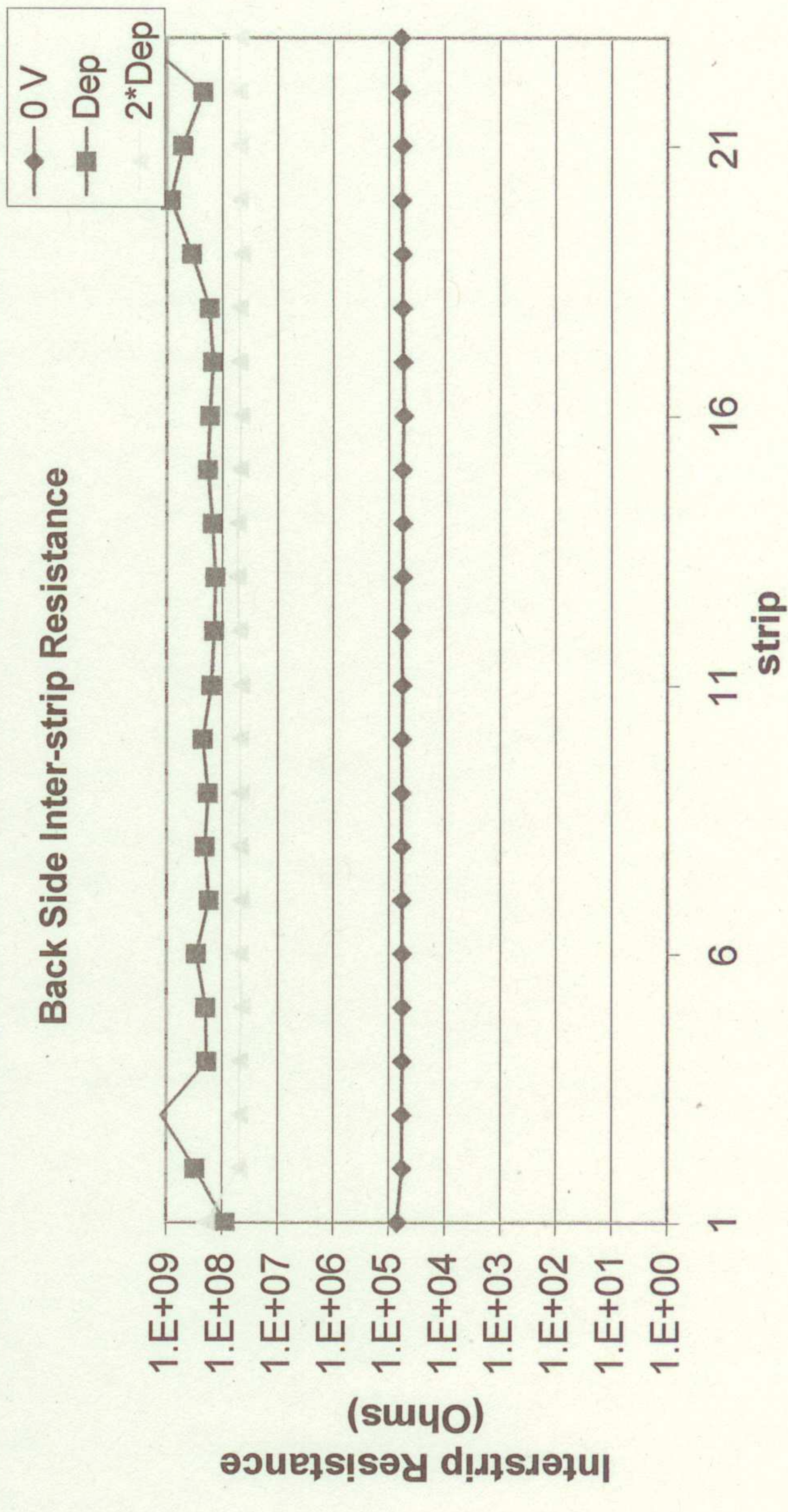
Back Side Data

Front Side Strip Leakage Current



| Strip | Back Resistance (Ω) | | |
|-------|---------------------|---------|---------|
| | 0V | DEP | 2*Dep |
| 1 | 7.1E+04 | 8.7E+07 | 2.0E+08 |
| 2 | 5.8E+04 | 3.0E+08 | 5.0E+07 |
| 3 | 5.9E+04 | 1.3E+09 | 5.0E+07 |
| 4 | 5.8E+04 | 1.9E+08 | 5.0E+07 |
| 5 | 5.8E+04 | 2.0E+08 | 4.5E+07 |
| 6 | 5.8E+04 | 2.9E+08 | 5.0E+07 |
| 7 | 5.9E+04 | 1.7E+08 | 4.7E+07 |
| 8 | 5.9E+04 | 2.0E+08 | 5.0E+07 |
| 9 | 5.9E+04 | 1.8E+08 | 4.8E+07 |
| 10 | 5.8E+04 | 2.2E+08 | 4.9E+07 |
| 11 | 5.8E+04 | 1.6E+08 | 4.7E+07 |
| 12 | 5.9E+04 | 1.4E+08 | 5.0E+07 |
| 13 | 5.6E+04 | 1.3E+08 | 5.4E+07 |
| 14 | 5.6E+04 | 1.5E+08 | 5.3E+07 |
| 15 | 5.7E+04 | 1.8E+08 | 4.9E+07 |
| 16 | 5.5E+04 | 1.7E+08 | 4.8E+07 |
| 17 | 5.6E+04 | 1.5E+08 | 5.1E+07 |
| 18 | 5.7E+04 | 1.7E+08 | 5.1E+07 |
| 19 | 5.7E+04 | 3.6E+08 | 4.7E+07 |
| 20 | 5.9E+04 | 8.4E+08 | 5.0E+07 |
| 21 | 5.8E+04 | 5.1E+08 | 5.0E+07 |
| 22 | 6.1E+04 | 2.2E+08 | 5.1E+07 |
| 23 | 6.1E+04 | 3.1E+09 | 5.1E+07 |

Back Side Inter-strip Resistance

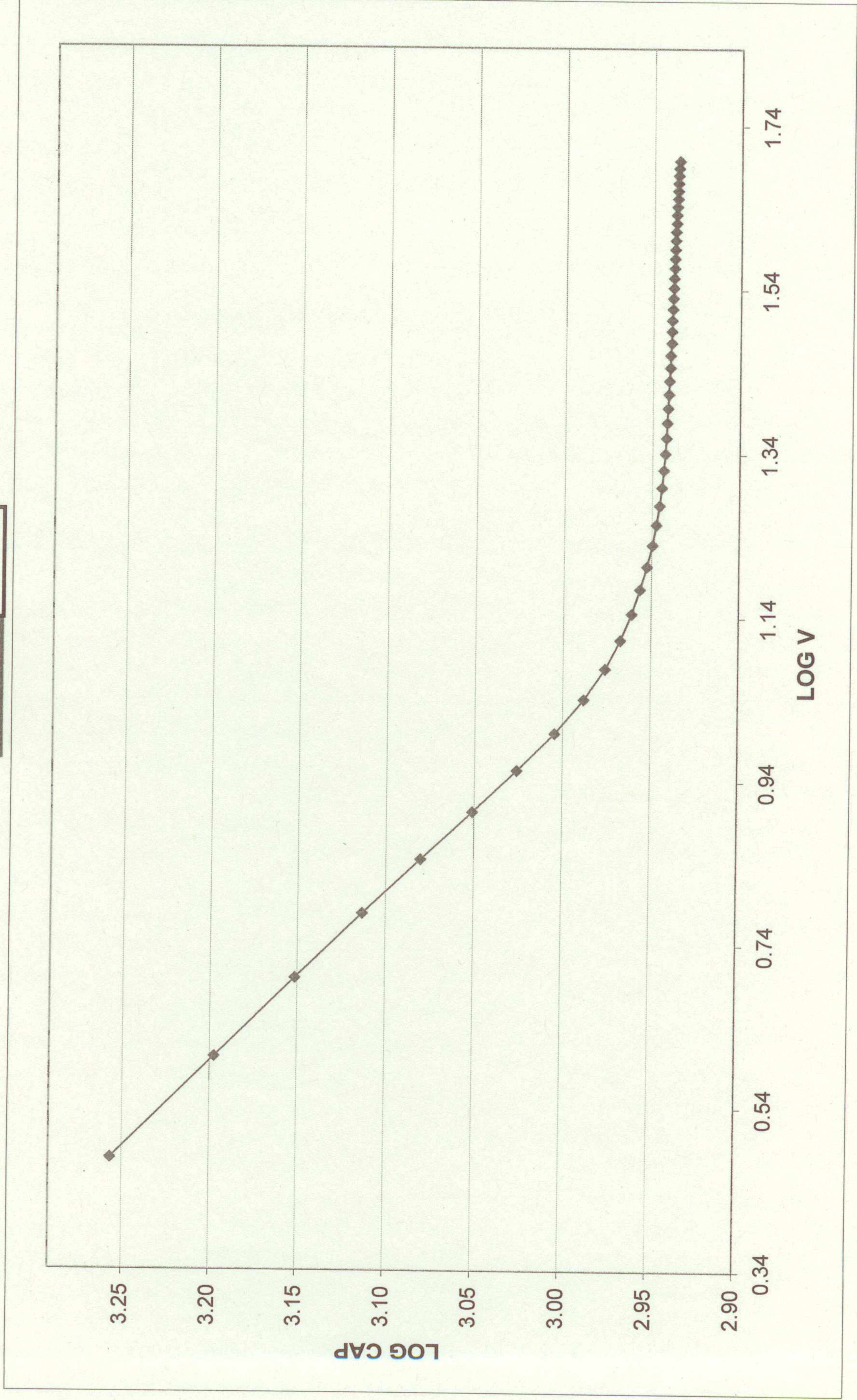


Depletion Plot

QQQ2-140

Wafer No.: 2892-3

Thickness: 138 μm
Depletion: 14 Volts



Resolution Plot

DESIGN QQQ2-140

Wafer No.: 2892-3

Thickness: 138 um

JUNCTION

DET LINE: 59.8 KeV
SYSTEM: 42.7 KeV
CAL: 41.9 KeV

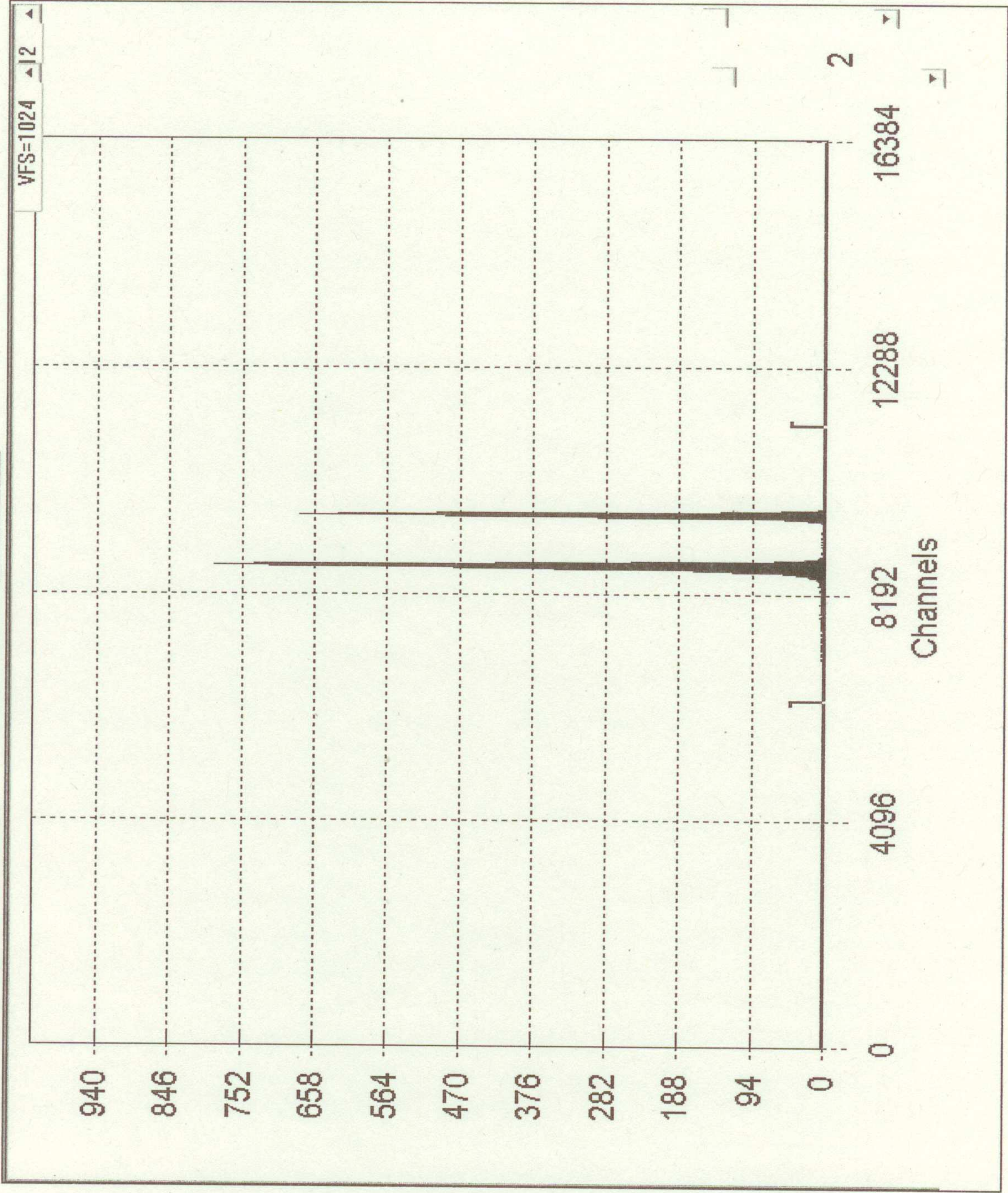
OHMIC

DET LINE: 65.6 KeV
SYSTEM: 40.5 KeV
CALC: 51.6 KeV

Source
Am 241

Rise Time
1

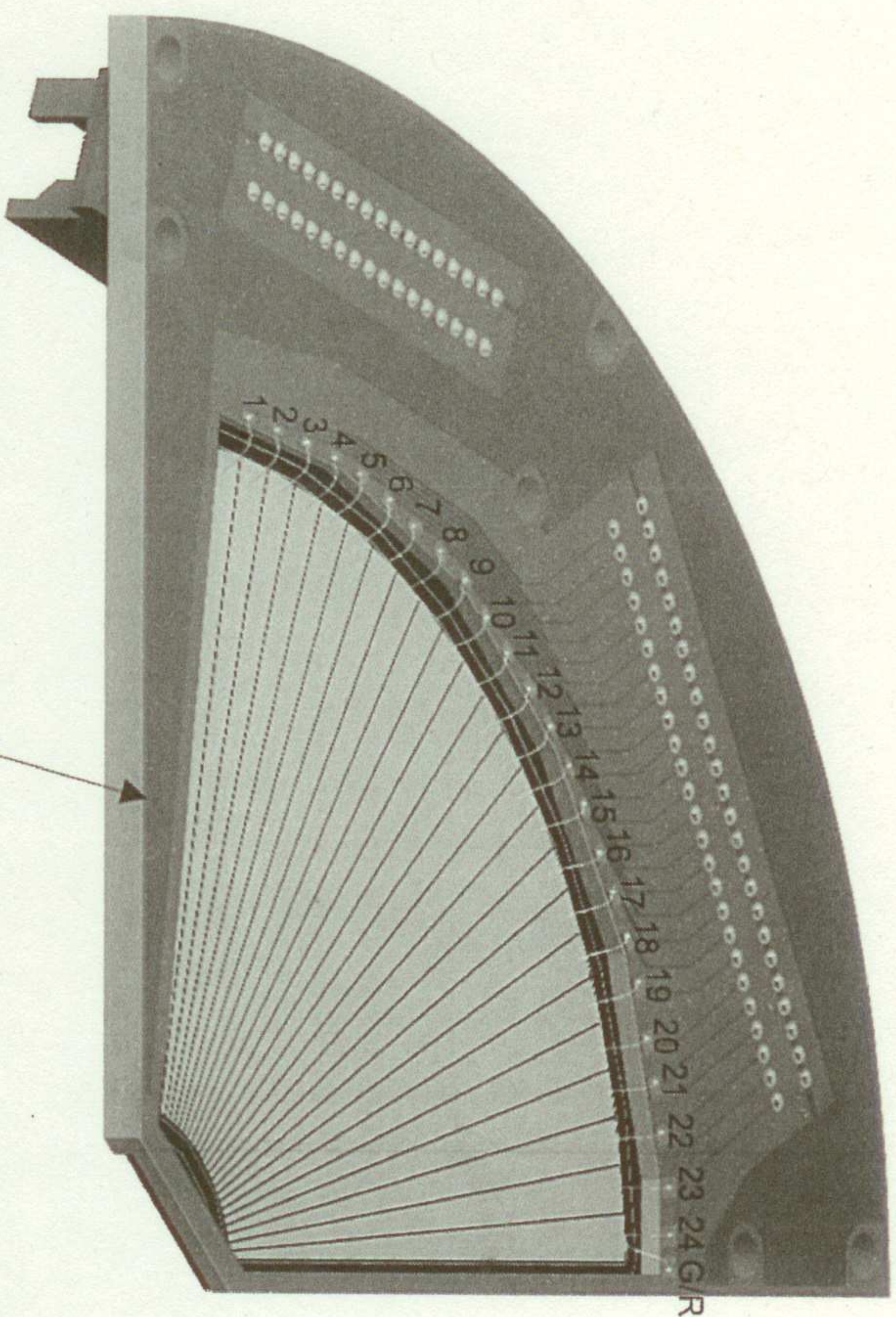
Flat Top
0



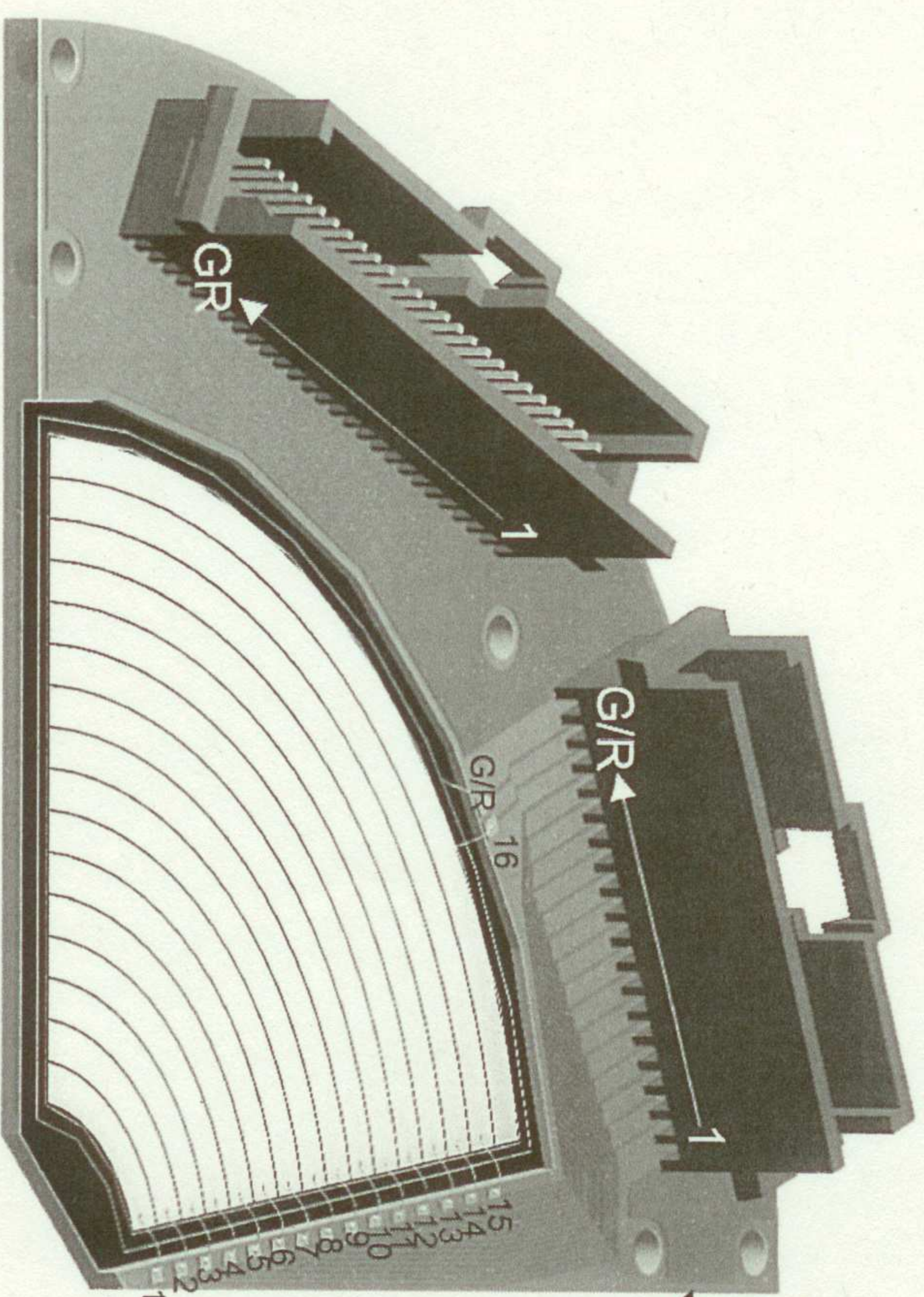
BIAS VOLTS= 30 V

Leakage 23 nA

Ohmic Side



Junction Side



Green solder resist on front and rear.

| | | | | |
|--|---------|------------|----------------------|--|
| Drawn | Checked | Date | Title. | |
| N.W | S.W | 29/06/2006 | Design QQQ2 | |
| Des. | | | 3D Assembly Drawing. | |
| Appd. | | | | |
| Micron | | | | |
| Tolerances Unless Stated | | | Customer P.O Number: | |
| Package O/D $\pm 0.1\text{mm}$ | | | Scale N/A | |
| Package Hole $\pm 0.05\text{mm}$ | | | Dims In. mm | |
| Package Hole Pos'n $\pm 0.1\text{mm}$ | | | Drg No A-3146 | |
| Detector O/D $\pm 20.0\mu\text{m}$ | | | | |
| Output: Via: Tyco AMP MODU pt nos. 50 way = 104068-5, 34 way = 1-104068-3 | | | | |
| Mating connector: Tyco AMP MODU pt nos. 50 way = 1-111196-1, 34 way = 111196-8 | | | | |
| Potted Wire Bonds: No | | | | |
| Substrate Number: A-2254 | | | | |
| Substrate Material: FR4 PCB material | | | | |
| Connector Orientation: Exiting front of PCB. | | | | |
| Micron Job Number: | | | | |