



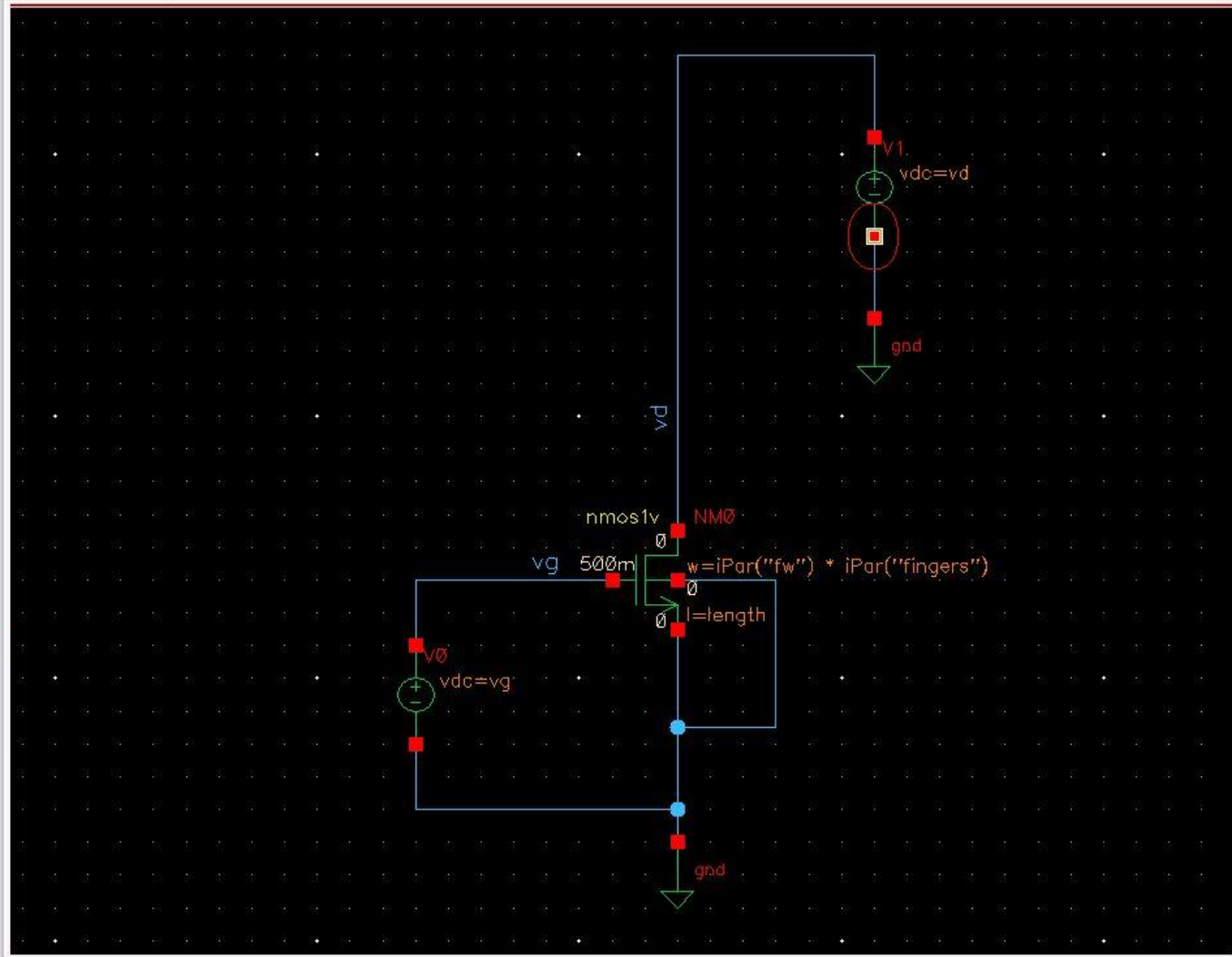
Workspace: ADE L Search

Navigator

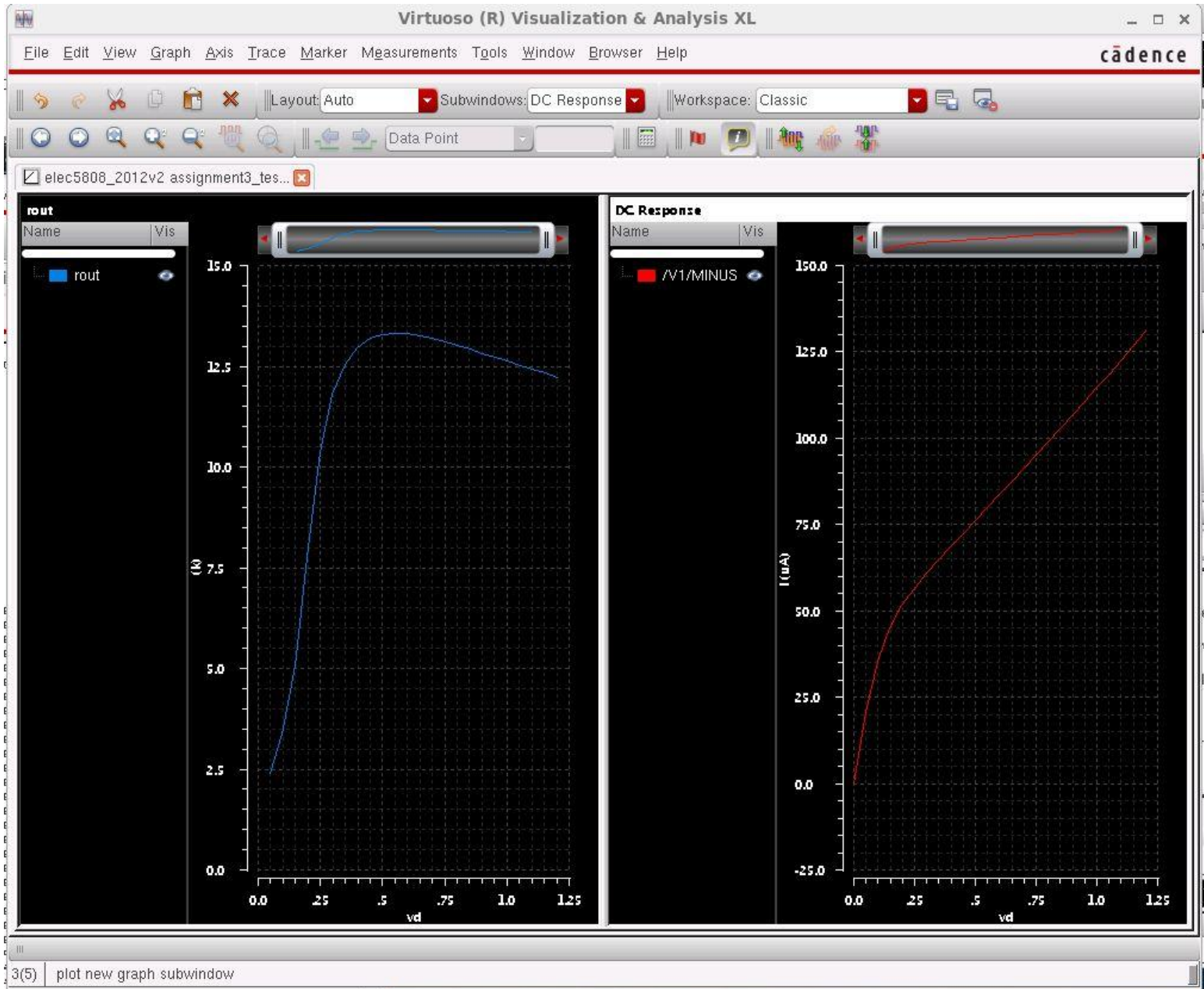
- Default
- Search
- Name
- assignment3_test1
 - NM0 (nmos1v)
 - V0 (vdc)
 - V1 (vdc)
 - gnd!
 - vd
 - vg

Property Editor

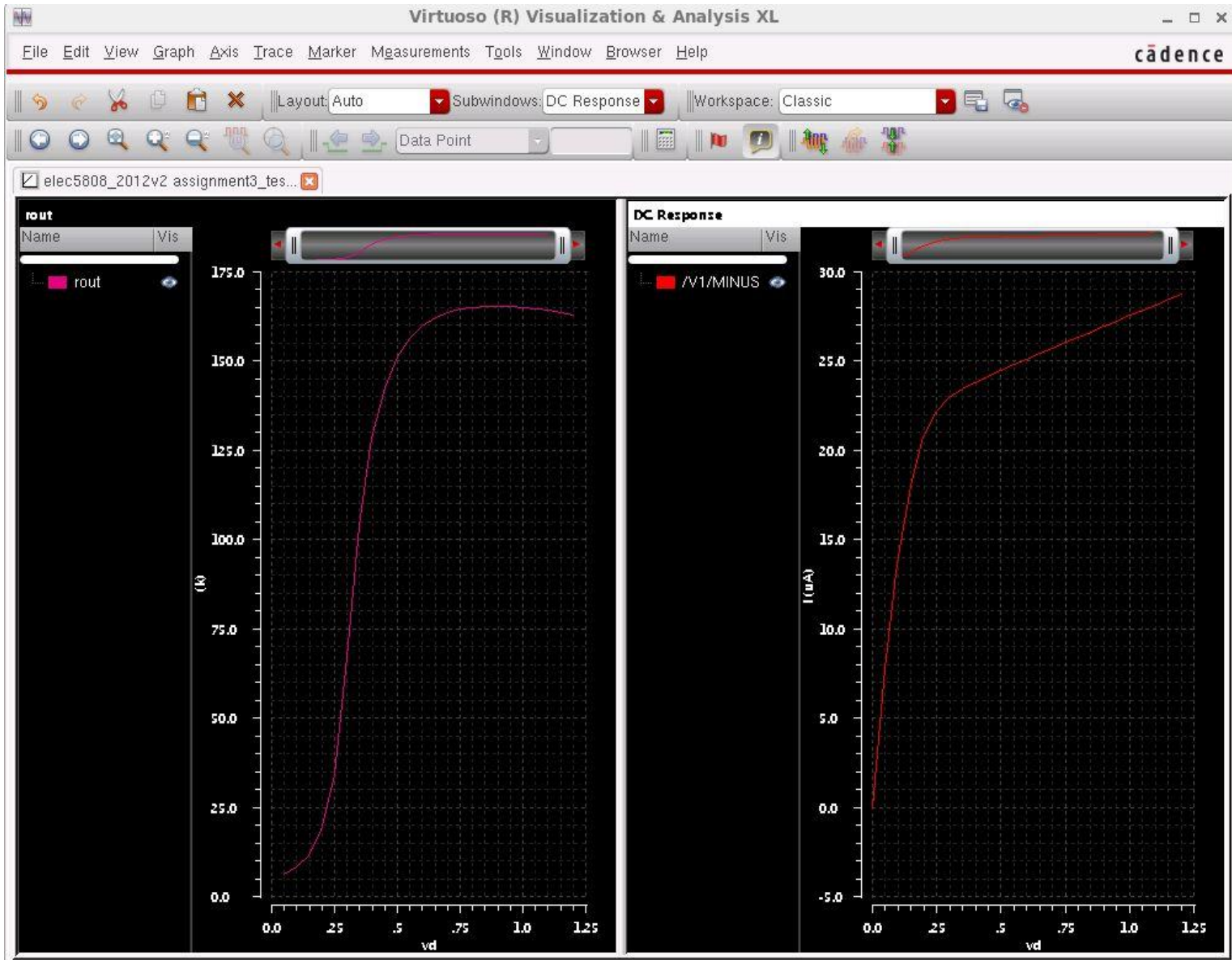
instance	Attributes
Name	MINUS
Direction	inputOutput
Signal Type	signal
Net Name	gnd!



$$w/l = 600n/100n$$



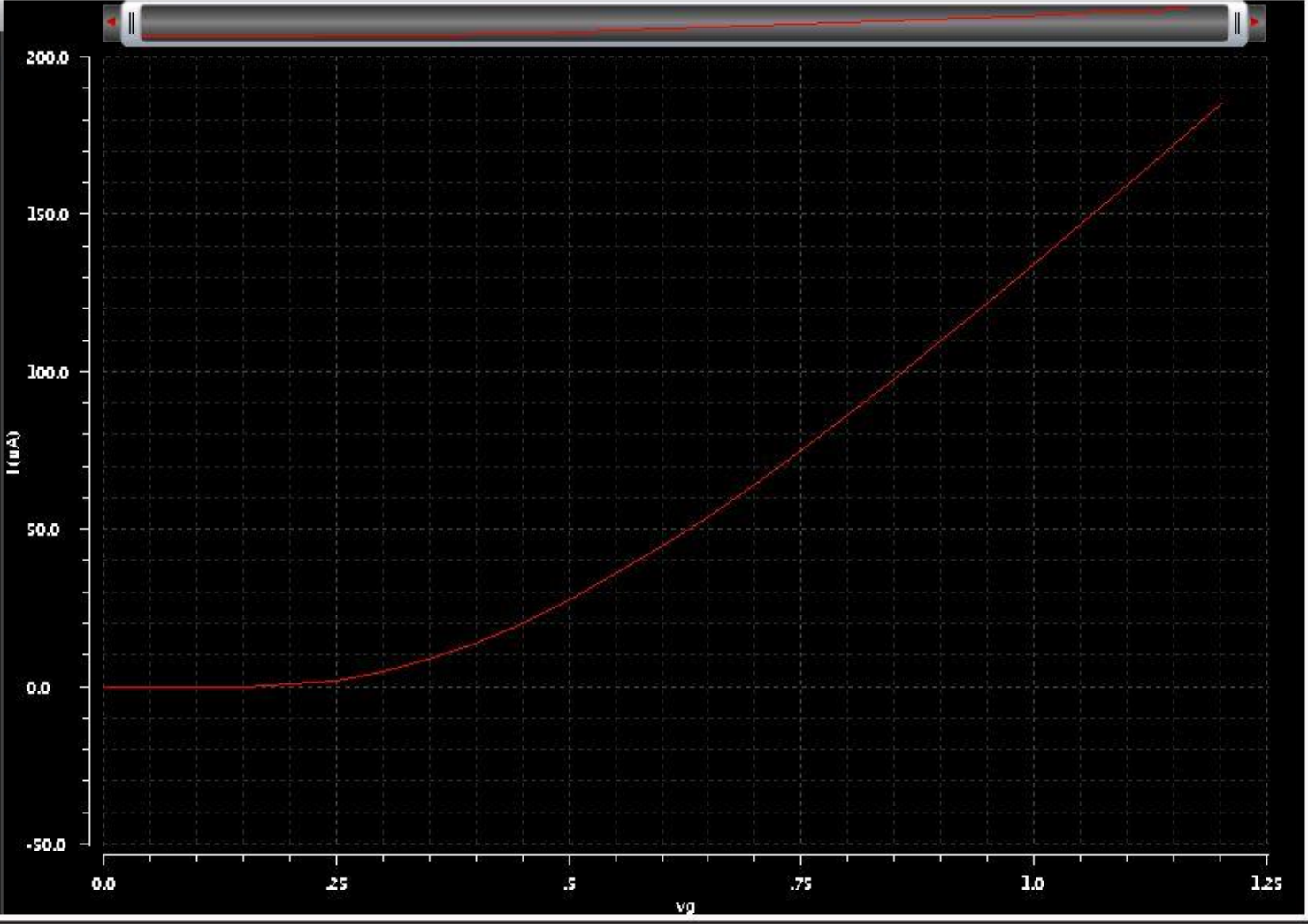
$$w/l = 600n/300n$$



DC Response

Name Vis

■ /V1/MINUS 



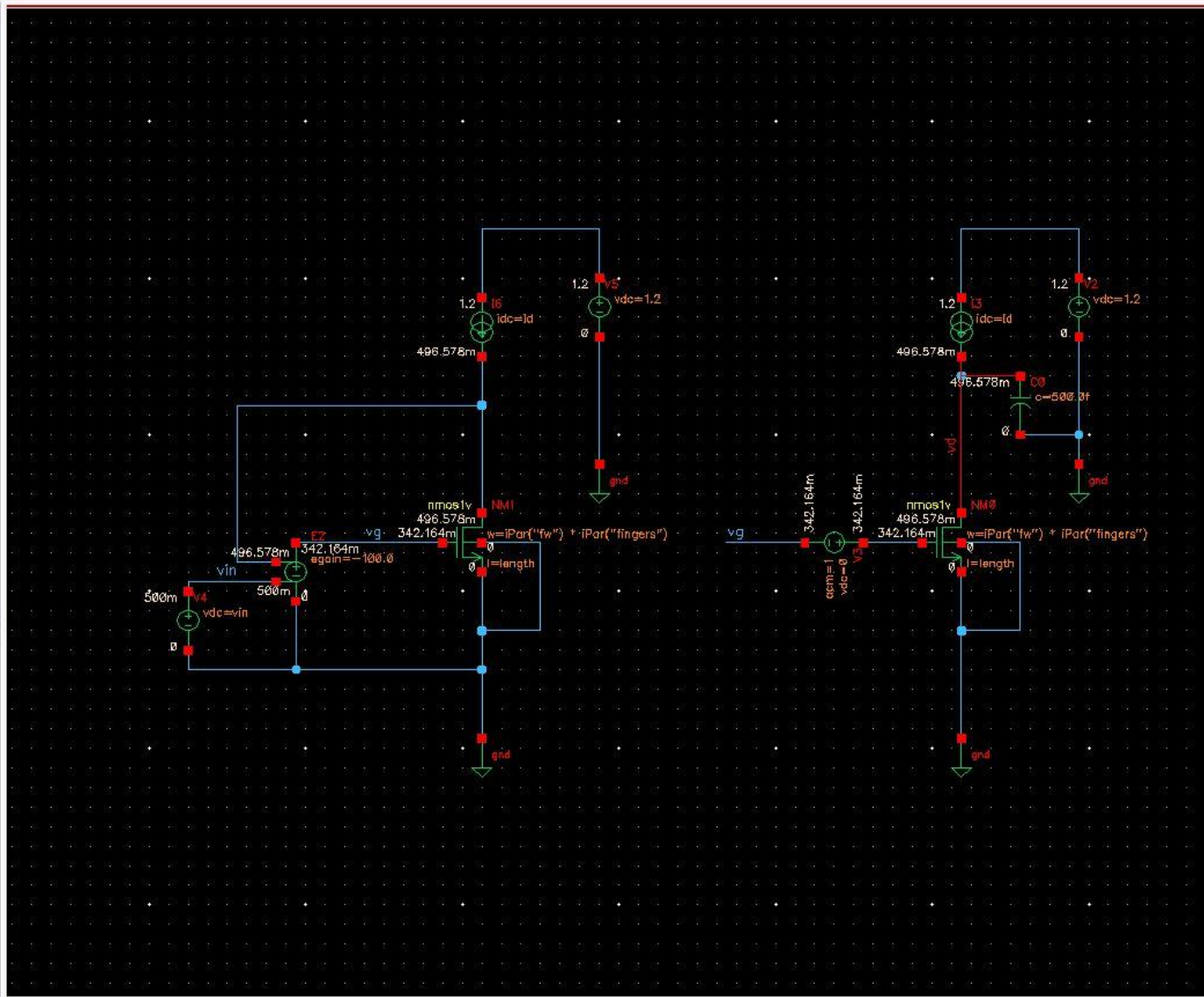
Navigator

Default

Search

- Name
- assignment3_test2
 - C0 (cap)
 - E2 (vcvs)
 - I3 (idc)
 - I6 (idc)
 - NM0 (nmos1v)
 - NM1 (nmos1v)
 - V2 (vdc)
 - V3 (vdc)
 - V4 (vdc)
 - V5 (vdc)
 - gnd1
 - net6
 - net07
 - net08
 - net09
 - vd
 - vg
 - vin

Property Editor



mouse L: schSingleSelectPt()

M: schZoomFit(1.0 0.9)

R: schHIMousePopU

Virtuoso® Analog Design Environment (2) - elec5808_2012v2 assignment3_test

Library: elec5808_2012v2

- AMSBC
- Cadence_IC
- EthernetPHY
- FracN_PLL
- PdKg90n_ITDB
- avTech

Call: assignment3_test2

- assignment1
- assignment1_tb
- assignment1_tb2
- assignment1v2
- assignment1v2_elec5808_2012v2
- assignment1v3
- assignment3_test1

Design Variables

Name	Value
vin	500m
fingers	4
ld	50u
length	300n
width	1.2u

Analyses

Type	Enable	Arguments
dc	<input checked="" type="checkbox"/>	t
ac	<input checked="" type="checkbox"/>	300m 1.1 50m Linear Step Size Start-Stop 100K

Outputs

Name/Signal/Expr	Value	Plot	Save	Save Options
vin		<input type="checkbox"/>	<input checked="" type="checkbox"/>	allv
vg		<input type="checkbox"/>	<input checked="" type="checkbox"/>	allv
vd		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	allv

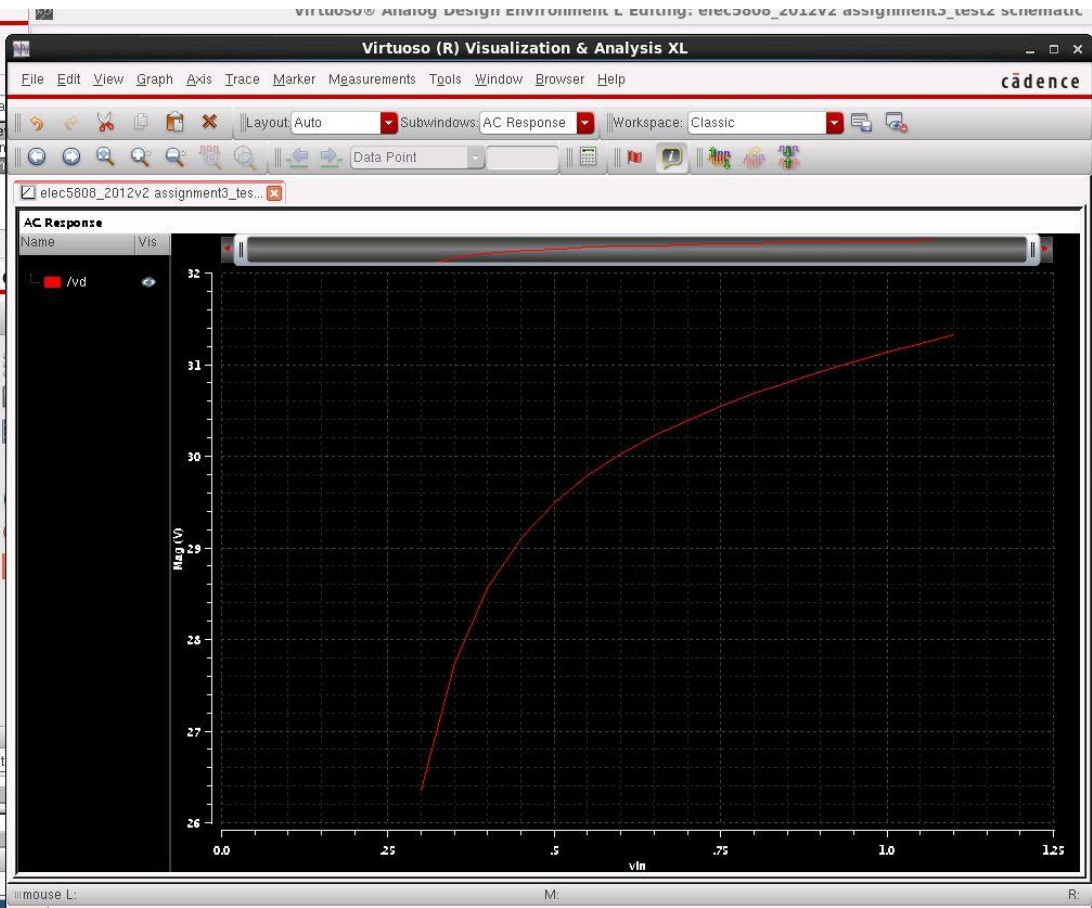
Plot after simulation: Auto Plotting mode: Replace

6(11) Netlist and Run Status: Ready T=27 C Simulator: spect

```

ac: vin = 450e-02 (18.0 s), step = 50e-02 (6.25 s)
ac: vin = 500e-02 (25 s), step = 50e-02 (6.25 s)
ac: vin = 550e-02 (32.2 s), step = 50e-02 (6.25 s)
ac: vin = 600e-02 (37.5 s), step = 50e-02 (6.25 s)
ac: vin = 650e-02 (42.8 s), step = 50e-02 (6.25 s)
ac: vin = 700e-02 (50 s), step = 50e-02 (6.25 s)
ac: vin = 750e-02 (56.2 s), step = 50e-02 (6.25 s)
ac: vin = 800e-02 (62.5 s), step = 50e-02 (6.25 s)
ac: vin = 850e-02 (68.8 s), step = 50e-02 (6.25 s)
ac: vin = 900e-02 (75 s), step = 50e-02 (6.25 s)

```



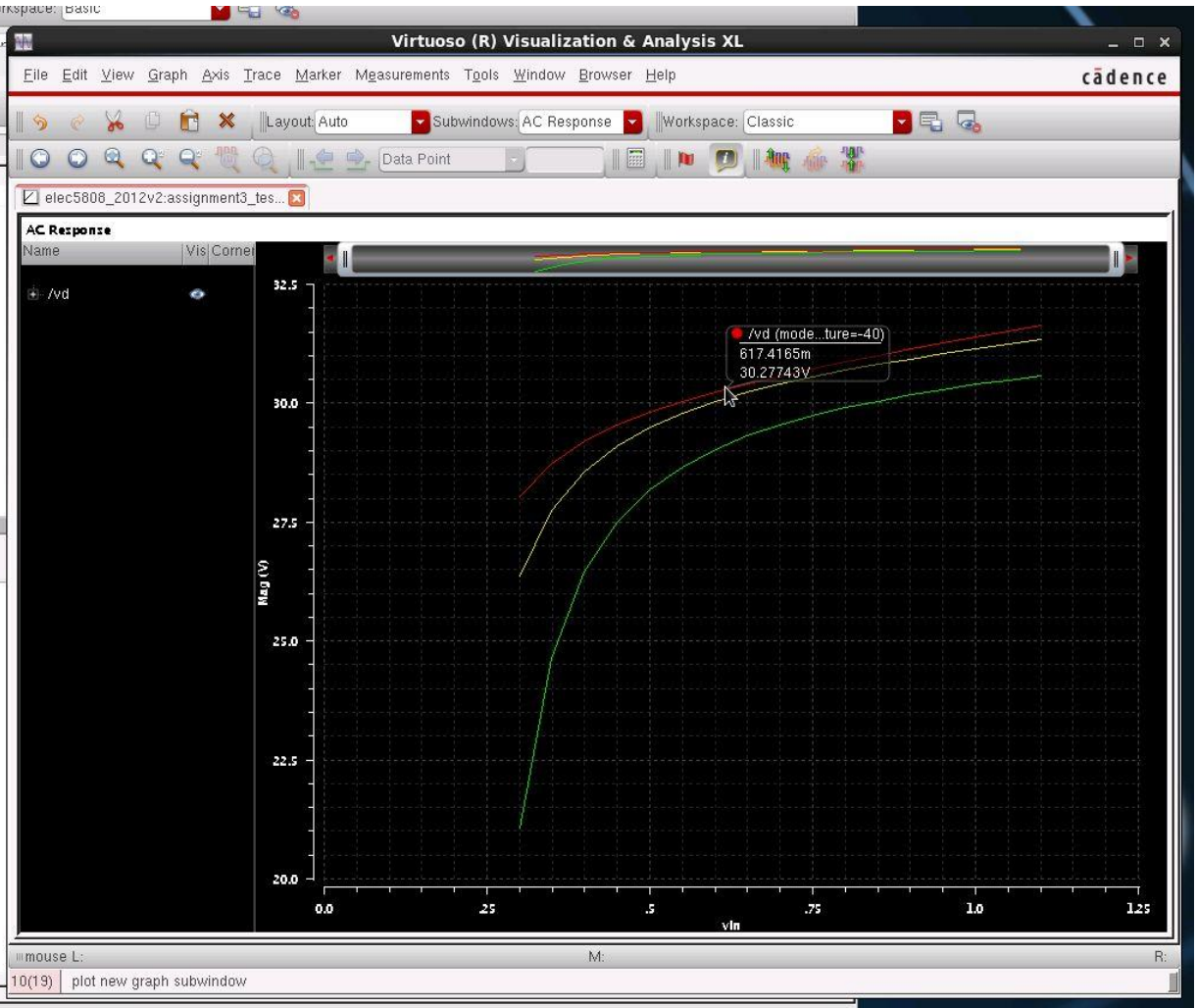
Corners Setup

Corners	<input checked="" type="checkbox"/>	Nominal	<input checked="" type="checkbox"/>	FF	<input checked="" type="checkbox"/>	SS
Temperature				-40		85
Design Variables	Click to add					
Parameters	Click to add					
Model Files	gpdk090.scs					
				<input checked="" type="checkbox"/>	FF	<input checked="" type="checkbox"/>
Model Group(s)	<modelgroup>					
Tests	...nment3_test2:1					
Number of Corners	1	1	1	1	1	1

Summary

- 1 Test
- 1 Point Sweep
- 2 Corners
- Nominal Corner

History Item	Status
Active.0	finished



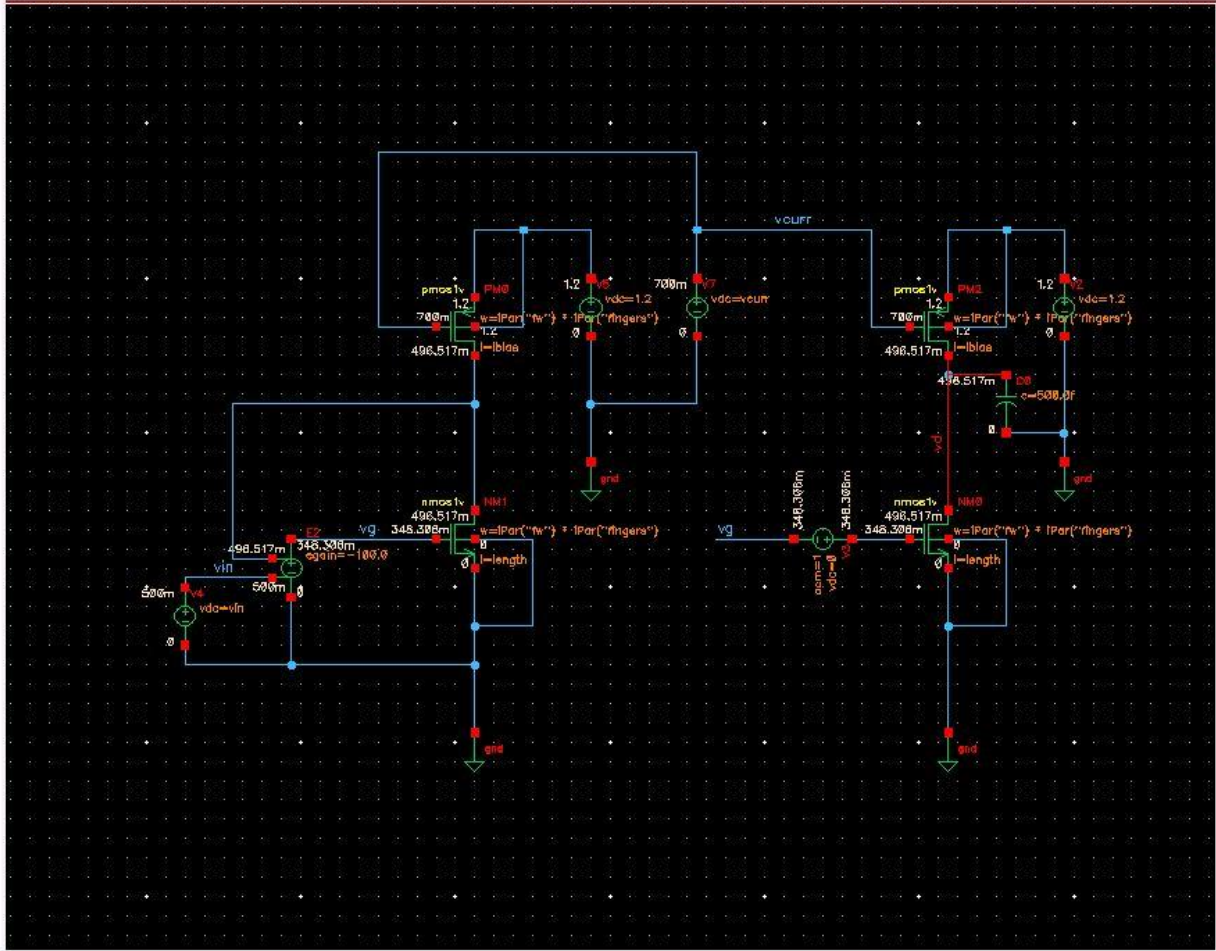
Navigator

Default

Search

- Name
- assignment3_test3
 - C0 (cap)
 - E2 (vcvs)
 - NM0 (nmos1v)
 - NM1 (nmos1v)
 - PM0 (pmos1v)
 - PM2 (pmos1v)
 - V2 (vdc)
 - V3 (vdc)
 - V4 (vdc)
 - V5 (vdc)
 - V7 (vdc)
 - gnd1
 - net6
 - net07
 - net08
 - net09
 - vcurr
 - vd
 - vg
 - vin

Property Editor



mouse L: mouseSubSelectPt()

M:

R:

11(21) >

Cmd: Sel: 0 Status: Ready T=27 C | Simulator: spectre State: state2

Virtuoso® Analog Design Environment (6) - elec5808_2012v2 assignment3_test

Launch Session Setup Analyses Variables Outputs Simulation Results Tools Help

Design Variables

Name	Value
1 lbias	600n
2 flngBias	4
3 wbias	1.2u
4 vcurr	700m
5 vin	500m
6 fingers	4
7 id	50u
8 length	300n
9 width	1.2u

Analyses

Type	Enable	Arguments
1 dc	<input checked="" type="checkbox"/>	t
2 ac	<input checked="" type="checkbox"/>	300m 900m 50m Linear Step Size Start-Stop 10...

Outputs

Name/Signal/Expr	Value	Plot	Save	Save Options
1 vin		<input type="checkbox"/>	<input checked="" type="checkbox"/>	allv
2 vg		<input type="checkbox"/>	<input checked="" type="checkbox"/>	allv
3 vd		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	allv
4 V2/MINUS		<input type="checkbox"/>	<input checked="" type="checkbox"/>	yes

Plot after simulation: Auto Plotting mode: Replace

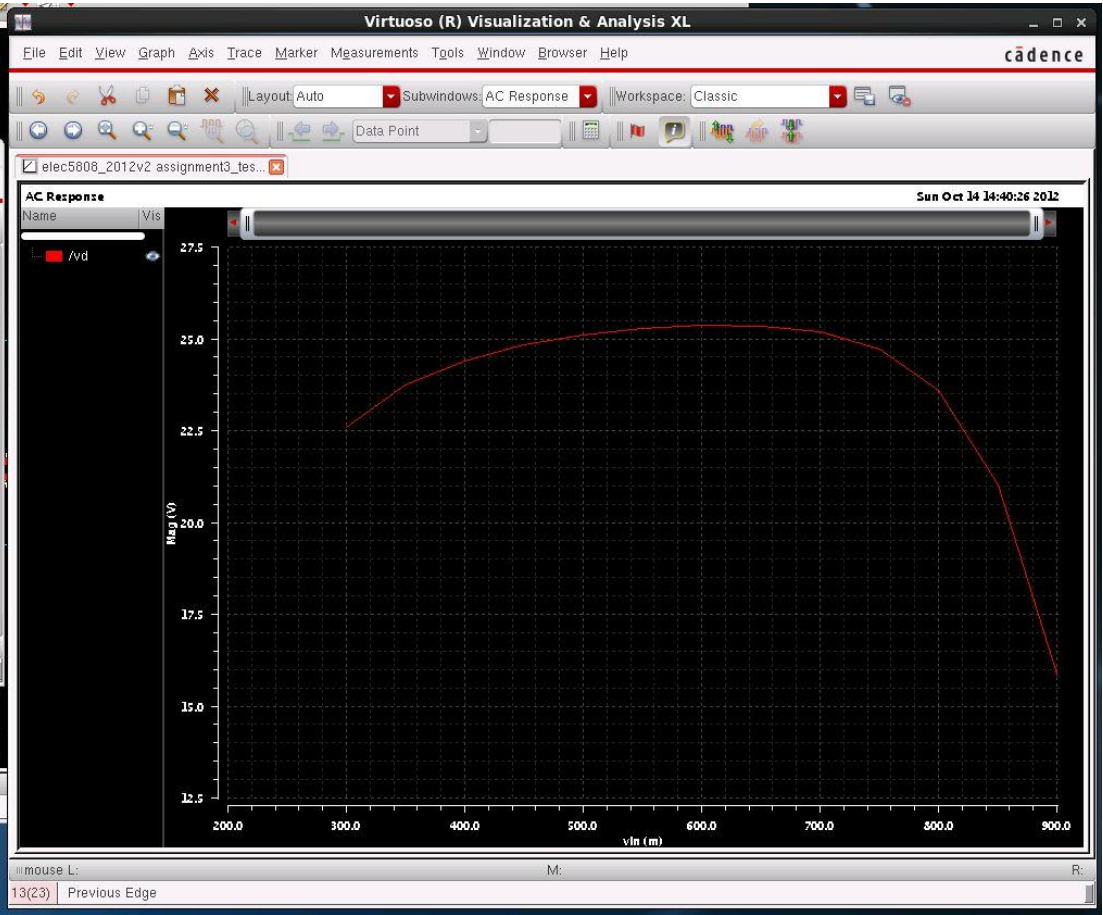
12(22) Plot Outputs Status: Ready T=27 C Simulator: spectre State: state2

```

ac: vin = 650e-03 (58.3 %), step = 50e-03 (8.33 %)
ac: vin = 700e-03 (66.7 %), step = 50e-03 (8.33 %)
ac: vin = 750e-03 (75 %), step = 50e-03 (8.33 %)
ac: vin = 800e-03 (80 %), step = 50e-03 (8.33 %)
ac: vin = 850e-03 (81.7 %), step = 50e-03 (8.33 %)
ac: vin = 900e-03 (100 %), step = 50e-03 (8.33 %)
Accumulated DC solution time = 0 s.
Intrinsic ac analysis time = 20 ms.
Total time required for ac analysis 'ac': CPU = 21.997 ms, elapsed = 60.0399 ms.
Time accumulated: CPU = 120.39 ms, elapsed = 766.719 ms.
Peak resident memory used = 32.2 Mbytes.

```

Notice from spectre:
 0 warnings suppressed.
 Warning from spectre:
 WARNING (CHI-1477): PDB: 'Bd' = 6.55462 uOhm is less than 0.001. Set to 0.



AC Response

Name Vis Corner

/vd

