

C:\Documents and Settings\usf\courses\EEL 3302\EEL 3302 FILES\cad\_03\design3-SCHEMATIC1-gain and input resistance.out

```
1: □
2: **** 10/26/07 15:08:22 ***** PSpice Lite (Mar 2000) *****
3:
4: ** Profile: "SCHEMATIC1-gain and input resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 330
  2 FILES\cad_03\design3-s
5:
6:
7: ****      CIRCUIT DESCRIPTION
8:
9:
10: *****
11:
12:
13:
14:
15: ** Creating circuit file "design3-schematic1-gain and input resistance.sim.cir"
16: ** WARNING: THIS AUTOMATICALLY GENERATED FILE MAY BE OVERWRITTEN BY SUBSEQUENT SIMULATIONS
17:
18: *Libraries:
19: * Local Libraries :
20: .LIB ".\mosfet.lib"
21: * From [PSPICE NETLIST] section of C:\Program Files\OrcadLite\PSpice\PSpice.ini file:
22: .lib "nom.lib"
23:
24: *Analysis directives:
25: .AC DEC 10 1e2 1e9
26: .OP
27: .PROBE V(*) I(*) W(*) D(*) NOISE(*)
28: .INC ".\design3-SCHEMATIC1.net"
29:
30:
31:
32: **** INCLUDING design3-SCHEMATIC1.net ****
33: * source DESIGN3
34: C_CC01      N00346 N00315  1n
35: R_RG21      0 N00434  1E6
36: C_CCI1      N05022 N00434  1n
37: R_RD1       N00346 N00512  2k
38: R_RL1       0 N00315   5k
39: R_RG11      N00434 N00512  4E6
40: V_Vsig1     N03656 0 DC 0Vdc AC 50mVac
41: V_VCC1      N00512 0 10Vdc
42: R_Rsig1     N03656 N05022  75
43: M_Q1        N00346 N00434 0 0 CAD3MOSFET
44:
45: **** RESUMING "design3-schematic1-gain and input resistance.sim.cir" ****
46: .END
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50: ** Profile: "SCHEMATIC1-gain and input resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 330
51: 2 FILES\cad_03\design3-s
52:
53: ****      MOSFET MODEL PARAMETERS
54:
55:
56: *****
57:
58:
59:
60:
61:          CAD3MOSFET
62:          NMOS
63:          LEVEL      1
64:             L      200.000000E-09
65:             W      1.000000E-06
66:             VTO     1
67:             KP      1.000000E-03
68:             GAMMA   0
69:             PHI     .6
70:          LAMBDA     .02
71:             IS      10.000000E-15
72:             JS      0
73:             PB      .8
74:             PBSW    .8
75:             CJ      0
76:             CJSW    0
77:             CGSO    5.000000E-06
78:             CGDO    2.000000E-06
79:             CGBO    0
80:             TOX     0
81:             XJ      0
82:             UCRIT   10.000000E+03
83:          DIOMOD     1
84:             VFB     0
85:             LETA    0
86:             WETA    0
87:             U0      0
88:             TEMP    0
89:             VDD     0
90:             XPART   0
91:
92: □
```

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95: ** Profile: "SCHEMATIC1-gain and input resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 330
2 FILES\cad_03\design3-s
96:
97:
98: ****      SMALL SIGNAL BIAS SOLUTION          TEMPERATURE =    27.000 DEG C
99:
100:
101: *****
102:
103:
104:
105:  NODE      VOLTAGE      NODE      VOLTAGE      NODE      VOLTAGE      NODE      VOLTAGE
106:
107:
108: (N00315)    0.0000 (N00346)    4.5455 (N00434)    2.0000 (N00512)    10.0000
109:
110: (N03656)    0.0000 (N05022)    0.0000
111:
112:
113:
114:
115:      VOLTAGE SOURCE CURRENTS
116:      NAME          CURRENT
117:
118:      V_Vsig1       0.000E+00
119:      V_VCC1        -2.729E-03
120:
121:      TOTAL POWER DISSIPATION    2.73E-02  WATTS
122:
123: □
124: **** 10/26/07 15:08:22 ***** PSpice Lite (Mar 2000) *****
125:
126: ** Profile: "SCHEMATIC1-gain and input resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 330
2 FILES\cad_03\design3-s
127:
128:
129: ****      OPERATING POINT INFORMATION          TEMPERATURE =    27.000 DEG C
130:
131:
132: *****
133:
134:
135:
136:
137:
```

```
138:
139: **** MOSFETS
140:
141:
142: NAME           M_Q1
143: MODEL           CAD3MOSFET
144: ID              2.73E-03
145: VGS             2.00E+00
146: VDS             4.55E+00
147: VBS             0.00E+00
148: VTH            1.00E+00
149: VDSAT           1.00E+00
150: Lin0/Sat1      -1.00E+00
151: if              -1.00E+00
152: ir              -1.00E+00
153: TAU             -1.00E+00
154: GM              5.45E-03
155: GDS             5.00E-05
156: GMB             0.00E+00
157: CBD             0.00E+00
158: CBS             0.00E+00
159: CGSOV           5.00E-12
160: CGDOV           2.00E-12
161: CGBOV           0.00E+00
162: CGS             0.00E+00
163: CGD             0.00E+00
164: CGB             0.00E+00
165:
166:                JOB CONCLUDED
167:
168:                TOTAL JOB TIME          .02
169: □
```