

```
1: □
2: **** 10/26/07 16:37:13 ***** PSpice Lite (Mar 2000) *****
3:
4: ** Profile: "SCHEMATIC2-output_resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 3302 FILES\cad_03\desig
n3-SCHEMATIC
5:
6:
7: ****      CIRCUIT DESCRIPTION
8:
9:
10: *****
11:
12:
13:
14:
15: ** Creating circuit file "design3-SCHEMATIC2-output_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-SCHEMATIC2.net"
29:
30:
31:
32: **** INCLUDING design3-SCHEMATIC2.net ****
33: * source DESIGN3
34: C_CC02      N00346 N00330  1n
35: R_RG22      0 N00434  1E6
36: C_CCI2      N05022 N00434  1n
37: R_RD2       N00346 N00512  2k
38: M_Q2        N00346 N00434  0 0 CAD3MOSFET
39: R_RG12      N00434 N00512  4E6
40: R_Truck     0 N00330  100e6
41: V_Vsig2     N03656 0 DC 0Vdc AC 0
42: V_VCC2      N00512 0 10Vdc
43: R_Rsig2     N03656 N05022  50
44: I_I2        N00330 0 DC 0Adc AC 1Aac
45:
46: **** RESUMING design3-SCHEMATIC2-output_resistance.sim.cir ****
47: .END
48: □
49: **** 10/26/07 16:37:13 ***** PSpice Lite (Mar 2000) *****
50:
51: ** Profile: "SCHEMATIC2-output_resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 3302 FILES\cad_03\desig
```

```
51: n3-SCHEMATIC
52:
53:
54: ****      MOSFET MODEL PARAMETERS
55:
56:
57: *****
58:
59:
60:
61:
62:          CAD3MOSFET
63:          NMOS
64:          LEVEL      1
65:          L      200.000000E-09
66:          W      1.000000E-06
67:          VTO      1
68:          KP      1.000000E-03
69:          GAMMA      0
70:          PHI      .6
71:          LAMBDA      .02
72:          IS      10.000000E-15
73:          JS      0
74:          PB      .8
75:          PBSW      .8
76:          CJ      0
77:          CJSW      0
78:          CGSO      5.000000E-06
79:          CGDO      2.000000E-06
80:          CGBO      0
81:          TOX      0
82:          XJ      0
83:          UCRIT      10.000000E+03
84:          DIOMOD      1
85:          VFB      0
86:          LETA      0
87:          WETA      0
88:          UO      0
89:          TEMP      0
90:          VDD      0
91:          XPART      0
92:
93: □
94: **** 10/26/07 16:37:13 ***** PSpice Lite (Mar 2000) *****
95:
96: ** Profile: "SCHEMATIC2-output_resistance" [ C:\Documents and Settings\usf\courses\EEL 3302\EEL 3302 FILES\cad_03\desig
n3-SCHEMATIC
97:
98:
99: ****      SMALL SIGNAL BIAS SOLUTION      TEMPERATURE =      27.000 DEG C
100:
101:
```

102: *****

103:

104:

105:

NODE	VOLTAGE	NODE	VOLTAGE	NODE	VOLTAGE	NODE	VOLTAGE
------	---------	------	---------	------	---------	------	---------

107:

108:

(N00330)	0.0000	(N00346)	4.5455	(N00434)	2.0000	(N00512)	10.0000
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110:

(N03656)	0.0000	(N05022)	0.0000
----------	--------	----------	--------

112:

113:

114:

115:

VOLTAGE SOURCE	CURRENTS
----------------	----------

NAME	CURRENT
------	---------

118:

V_Vsig2	0.000E+00
---------	-----------

V_VCC2	-2.729E-03
--------	------------

121:

TOTAL POWER DISSIPATION	2.73E-02	WATTS
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123:

124:

125: **** 10/26/07 16:37:13 ***** PSpice Lite (Mar 2000) *****

126:

127: ** Profile: "SCHEMATIC2-output_resistance" [C:\Documents and Settings\usf\courses\EEL 3302\EEL 3302 FILES\cad_03\design3-SCHEMATIC

128:

129:

130: **** OPERATING POINT INFORMATION TEMPERATURE = 27.000 DEG C

131:

132:

133: *****

134:

135:

136:

137:

138:

139:

140: **** MOSFETS

141:

142:

NAME	M_Q2
------	------

MODEL	CAD3MOSFET
-------	------------

ID	2.73E-03
----	----------

VGS	2.00E+00
-----	----------

VDS	4.55E+00
-----	----------

VBS	0.00E+00
-----	----------

VTH	1.00E+00
-----	----------

VDSAT	1.00E+00
-------	----------

Lin0/Sat1	-1.00E+00
-----------	-----------

if	-1.00E+00
----	-----------

153:	ir	-1.00E+00	
154:	TAU	-1.00E+00	
155:	GM	5.45E-03	
156:	GDS	5.00E-05	
157:	GMB	0.00E+00	
158:	CBD	0.00E+00	
159:	CBS	0.00E+00	
160:	CGSOV	5.00E-12	
161:	CGDOV	2.00E-12	
162:	CGBOV	0.00E+00	
163:	CGS	0.00E+00	
164:	CGD	0.00E+00	
165:	CGB	0.00E+00	
166:			
167:	JOB CONCLUDED		
168:			
169:	TOTAL JOB TIME	0.00	
170:	□		