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**** 01/14/13 23:32:54 ***** PSpice Lite (April 2011) ***** ID# 10813 ****

** Profile: "SCHEMATIC1-par" [ C:\Users\siddu\Documents\orcad projects\parametric sweeps-pspicefiles\schematic1\par.sim ]

****      CIRCUIT DESCRIPTION

*****

** Creating circuit file "par.cir"
** WARNING: THIS AUTOMATICALLY GENERATED FILE MAY BE OVERWRITTEN BY SUBSEQUENT SIMULATIONS

*Libraries:
* Profile Libraries :
* Local Libraries :
* From [PSPIICE NETLIST] section of C:\OrCAD\OrCAD_16.5_Lite\tools\pspice\PSpice.ini file:
.lib "nomd.lib"
.lib "Ccrfind.lib"
.lib "adv lin.lib"
.lib "apex.lib"
.lib "burr brn.lib"
.lib "cel.lib"
.lib "comlinr.lib"
.lib "elantec.lib"
.lib "epcos.lib"
.lib "fairchild.lib"
.lib "infineon.lib"
.lib "lin tech.lib"
.lib "maxim.lib"
.lib "mbr340.lib"
.lib "B8247X.lib"
.lib "B82462.lib"
.lib "B82464.lib"
.lib "B82472.lib"
.lib "B82479.lib"

*Analysis directives:
.TRAN 0 50u 0
.PROBE V(alias(*)) I(alias(*)) W(alias(*)) D(alias(*)) NOISE(alias(*))
.INC "..\SCHEMATIC1.net"
```

```
**** INCLUDING SCHEMATIC1.net ****
* source PARAMETRIC SWEEPS
D D1      0 SOURCE D1N914
D D2      SOURCE N32278 D1N914
M M1      SOURCE VG2 0 0 IRF150
R R1      0 N31942 0.12
C C1      0 N31942 20.833u
L L1      SOURCE N31942 1.1u
V V2      VG1 SOURCE
+PULSE 0 20 0 0.01n 0.01n {D/Fs} {1/Fs}
V V3      VG2 0
+PULSE 0 20 {D/Fs+0.040u} 0.01n 0.01n {1/Fs-D/Fs-0.080u} {1/Fs}
V V4      N32278 N32282 0Vdc
V V1      N32282 0 12Vdc
M M2      N32278 VG1 SOURCE SOURCE IRF150
X U1A     N367161 N39598 N367163 0 N37505 LM324
V V5      N37322 0 1.2Vdc
V V6      N367163 0 5Vdc
R R3      N39598 N31942 1k
R R4      N367161 N37322 1k
R R6      0 N367161 1k
V V7      RAMP 0
+PULSE 0 15 0 2u 0 0 2u
R R11     N39598 N37505 1k
X U2      N406331 RAMP N37505 N406332 N41091 N41036 PWM NPWM LT1394/LT
V V8      N406332 0 -7Vdc
V V9      N406331 0 7Vdc
.PARAM fs=500k d=0.1

**** RESUMING par.cir ****
.END
```

INFO(ORPSIM-15423): Unable to find index file adv\_lin.ind for library file adv\_lin.lib.

INFO(ORPSIM-15422): Making new index file adv\_lin.ind for library file adv\_lin.lib.

Index has 34 entries from 1 file(s).

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\*\*\*\* Diode MODEL PARAMETERS

\*\*\*\*\*

	D1N914	X U1A.dx	X U2.XCOMP.DX	X U2.XCOMP.DPC
IS	168.100000E-21	800.000000E-18	1.000000E-12	825.920000E-18
ISR	100.000000E-12			
BV	100			
IBV	100.000000E-06			
RS	.1	1		
TT	11.540000E-09			
CJO	4.000000E-12			
VJ	.75			
M	.3333			
XTI			0	0

	X U2.XCOMP.D3P	X U2.XCOMP.D3N
IS	1.000000E-12	1.000000E-12
TT	42.328000E-09	49.518000E-09
CJO	300.000000E-15	300.000000E-15
XTI	0	0

	X U2.XCOMP.DLATCH	X U2.XCOMP.DOUT
IS	1.000000E-12	800.000000E-09
N	.1	
TT	12.026000E-09	
CJO	300.000000E-15	
EG	.1	
XTI	0	0

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\*\*\*\* BJT MODEL PARAMETERS

\*\*\*\*\*

X U1A.qx  
PNP

```
LEVEL      1
IS         800.000000E-18
BF         166.7
NF         1
BR         1
NR         1
ISS        0
RE         0
RC         0
CJE        0
VJE        .75
CJC        0
VJC        .75
MJC        .33
XCJC       1
CJS        0
VJS        .75
KF         0
AF         1
CN         2.2
D          .52
```

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\*\*\*\* MOSFET MODEL PARAMETERS

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	IRF150	X U2.XCOMP.SPMOS
	NMOS	PMOS
LEVEL	3	1
L	2.000000E-06	100.000000E-06
W	.3	100.000000E-06
VTO	2.831	-3
KP	20.530000E-06	10
GAMMA	0	0
PHI	.6	.6
LAMBDA	0	0
RD	1.031000E-03	
RS	1.624000E-03	

RG	13.89	
RDS	444.400000E+03	
IS	194.000000E-18	10.000000E-15
JS	0	0
PB	.8	.8
PBSW	.8	.8
CBD	3.229000E-09	
CJ	0	0
CJSW	0	0
TT	288.000000E-09	
CGSO	9.027000E-09	0
CGDO	1.679000E-09	0
CGBO	0	0
TOX	100.000000E-09	0
XJ	0	0
UCRIT	10.000000E+03	10.000000E+03
DELTA	0	
ETA	0	
KAPPA	1.000000E-12	
DIOMOD	1	1
VFB	0	0
LETA	0	0
WETA	0	0
U0	0	0
TEMP	0	0
VDD	5	5
XPART	0	0

	X U2.XCOMP.SNMOS
	NMOS
LEVEL	1
L	100.000000E-06
W	100.000000E-06
VTO	3
KP	10
GAMMA	0
PHI	.6
LAMBDA	0
IS	10.000000E-15
JS	0
PB	.8
PBSW	.8
CJ	0
CJSW	0
CGSO	0
CGDO	0
CGBO	0

```

      TOX      0
      XJ       0
      UCRIT    10.000000E+03
      DIOMOD    1
      VFB      0
      LETA     0
      WETA     0
      U0       0
      TEMP     0
      VDD      5
      XPART    0

```

WARNING(ORPSIM-15452): Pulse Period < (Rise Time + Fall Time + Pulse Width) for V\_V7.

ERROR -- Convergence problem in transient bias point calculation

Last node voltages tried were:

NODE	VOLTAGE	NODE	VOLTAGE	NODE	VOLTAGE	NODE	VOLTAGE
( PWM)	-1.3053	( VG1)	-328.7E-12	( VG2)	0.0000	( NPWM)	-1.3053
( RAMP)	0.0000	(N31942)	-328.7E-12	(N32278)	.0691	(N32282)	.0691
(N37322)	.0069	(N37505)	-316.9E-06	(N39598)	-158.4E-06	(N41036)	451.5900
(N41091)	.0403	(SOURCE)	-328.7E-12	(N367161)	.0035		
(N367163)	.0288			(N406331)	.0403		
(N406332)	-.0403			(X_U1A.6)	13.48E-06		
(X_U1A.7)	-325.0E-06			(X_U1A.8)	-325.0E-06		
(X_U1A.9)	0.0000			(X_U1A.10)	.4427		
(X_U1A.11)	115.8E-06			(X_U1A.12)	100.7E-06		
(X_U1A.13)	.4427			(X_U1A.14)	.4427		
(X_U1A.53)	.0202			(X_U1A.54)	.0037		
(X_U1A.90)	-932.1E-09			(X_U1A.91)	.2305		
(X_U1A.92)	-.2305			(X_U1A.99)	83.00E-06		

(X_U2.XCOMP.3)	-33.19E-09	(X_U2.XCOMP.20)	.0029
(X_U2.XCOMP.21)	.0710	(X_U2.XCOMP.22)	-.0710
(X_U2.XCOMP.23)	16.83E-06	(X_U2.XCOMP.24)	96.98E-09
(X_U2.XCOMP.25)	.0653	(X_U2.XCOMP.26)	-.0653
(X_U2.XCOMP.30)	720.9E-27	(X_U2.XCOMP.32)	-1.3103
(X_U2.XCOMP.33)	1.3103	(X_U2.XCOMP.40)	4.154E-27
(X_U2.XCOMP.41)	4.154E-27	(X_U2.XCOMP.42)	-1.3009
(X_U2.XCOMP.43)	-1.3009	(X_U2.XCOMP.46)	-1.3009
(X_U2.XCOMP.47)	-1.3009	(X_U2.XCOMP.51)	.0077
(X_U2.XCOMP.52)	2.6141	(X_U2.XCOMP.53)	2.6141
(X_U2.XCOMP.301)	.0058	(X_U2.XCOMP.302)	.0058
(X_U2.XCOMP.303)	-.0119	(X_U2.XCOMP.304)	-.0113
(X_U2.XCOMP.401)	-1.3009	(X_U2.XCOMP.601)	.0403
(X_U2.XCOMP.602)	.0403	(X_U2.XCOMP.603)	.0403
(X_U2.XCOMP.623)	.5534	(X_U2.XCOMP.642)	0.0000
(X_U2.XCOMP.645)	23.93E-30	(X_U2.XCOMP.646)	.1152
(X_U2.XCOMP.647)	-.1152	(X_U2.XCOMP.648)	-.0032
(X_U2.XCOMP.649)	0.0000		

These voltages failed to converge:

V(N39598)	=	6.699mV	\	-158.40uV
V(N37505)	=	13.40mV	\	-316.93uV
V(X_U1A.11)	=	103.41uV	\	115.84uV
V(X_U1A.12)	=	116.61uV	\	100.75uV
V(X_U1A.6)	=	16.19uV	\	13.48uV
V(X_U1A.7)	=	13.74mV	\	-325.02uV
V(X_U1A.90)	=	39.37uV	\	-932.13nV
V(X_U1A.99)	=	14.41mV	\	83.00uV

V(X U1A.10)	=	446.81mV	\	442.73mV
V(X U1A.13)	=	446.78mV	\	442.69mV
V(X U1A.14)	=	446.77mV	\	442.70mV
V(X U1A.8)	=	13.74mV	\	-325.02uV
V(X U2.XCOMP.3)	=	-5.829uV	\	-33.19nV
V(X U2.XCOMP.20)	=	-123.56mV	\	2.921mV
V(X U2.XCOMP.23)	=	-711.92uV	\	16.83uV
V(X U2.XCOMP.24)	=	-4.102uV	\	96.98nV
V(X U2.XCOMP.32)	=	-227.41V	\	-1.310V
V(X U2.XCOMP.33)	=	227.41V	\	1.310V
V(X U2.XCOMP.51)	=	237.77uV	\	7.703mV
V(X U2.XCOMP.52)	=	452.36V	\	2.614V
V(X_U2.XCOMP.53)	=	452.36V	\	2.614V

These supply currents failed to converge:

I(X U1A.egnd)	=	-6.800uA	\	195.18nA
I(X U2.XCOMP.E4P)	=	10.00GA	\	10.00GA
I(X U2.XCOMP.E4N)	=	10.00GA	\	10.00GA
I(X U2.XCOMP.EGV)	=	761.63fA	\	-448.98pA
I(V V7)	=	134.04nA	\	-3.101nA
I(X U1A.vb)	=	161.88pA	\	134.83pA
I(X_U1A.vlim)	=	6.833uA	\	-161.78nA

These devices failed to converge:

X U2.XCOMP.D1N X U2.XCOMP.D4P X\_U2.XCOMP.D4N X\_U2.XCOMP.DAN X\_U1A.fb  
X\_U1A.q1 X\_U1A.q2

\*\*\*\* Interrupt \*\*\*\*