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**** 03/30/21 20:01:45 ***** PSpice Lite (April 2011) ***** ID# 10813 ****

** Profile: "SCHEMATIC1-1" [C:\VKR\Diode and irn\diodirn-pspicefiles\schematic1\1.sim]

**** CIRCUIT DESCRIPTION

** Creating circuit file "1.cir"
** WARNING: THIS AUTOMATICALLY GENERATED FILE MAY BE OVERWRITTEN BY SUBSEQUENT SIMULATIONS

*Libraries:
* Profile Libraries :
.INC "C:\VKR\Diode and irn\diodirn-pspicefiles\schematic1\1\1_profile.inc"
* Local Libraries :
* From [PSPIICE NETLIST] section of C:\Cadence\SPB_16.5\tools\PSpice\PSpice.ini file:

**** INCLUDING 1_profile.inc ****
.LIB ".\diode_primer.lib"

**** RESUMING 1.cir ****
.lib "nomd.lib"

*Analysis directives:
.TRAN 0 0.12 0 1u SKIPBP
.OPTIONS DMFACTOR= 0.1
.AUTOCONVERGE ITL1=1000 ITL2=1000 ITL4=1000 RELTOL=0.05 ABSTOL=1.0E-6 VNTOL=.001 PIVTOL=1.0E-10
.PROBE V(alias(*)) I(alias(*)) W(alias(*)) D(alias(*)) NOISE(alias(*))
.INC "..\SCHEMATIC1.net"

**** INCLUDING SCHEMATIC1.net ****
* source DIODIRN

```
X_S1      N03510 0 4 N01050 SCHEMATIC1_S1
C_C2      0 3  6800u IC=0 TC=0,0
R_R1      0 3  1.9 TC=0,0
V_V3      11 0
+PULSE 0 10 0 99.5u 99.5u 1u 200u
E_E2      N03510 0 TABLE { (V(10)-V(11)) }
+ ( (-10,0) (-0.001,0) (0,0) (0.001,1) (10,1) )
E_E3      10 0 VALUE { 10*(Uust-(V(3,0)-Uust))/V(4,0) }
D_D5      0 N01050 Dbreak
L_L2      N01050 3  4000u
D_D6      N15257 4 Dbreak
D_D7      0 4 Dbreak
D_D8      0 N15257 Dbreak
D_D9      0 0 Dbreak
V_V5      N15257 0  AC 0
+SIN 0 311 50 0 0 0
C_C3      0 4  470u  TC=0,0
.PARAM  uust=27

.subckt SCHEMATIC1_S1 1 2 3 4
S_S1      3 4 1 2 _S1
RS_S1     1 2 1G
.MODEL   _S1 VSWITCH Roff=1e6 Ron=1m Voff=0V Von=1V
.ends SCHEMATIC1_S1

**** RESUMING 1.cir ****
.END
^
**** 03/30/21 20:01:45 ***** PSpice Lite (April 2011) ***** ID# 10813 ****

** Profile: "SCHEMATIC1-1" [ C:\VKR\Diode and irn\diodirn-pspicefiles\schematic1\1.sim ]

****      Diode MODEL PARAMETERS

*****
```

Dbreak
IS 10.000000E-15
RS .1
CJO 100.000000E-15

↑
**** 03/30/21 20:01:45 ***** PSpice Lite (April 2011) ***** ID# 10813 ****

** Profile: "SCHEMATIC1-1" [C:\VKR\Diode and irn\diodirn-PSpiceFiles\schematic1\1.sim]

**** Voltage Controlled Switch MODEL PARAMETERS

X_S1._S1
RON 1.000000E-03
ROFF 1.000000E+06
VON 1
VOFF 0

Convergence problem in transient analysis at Time = 4.768E-15
Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These supply currents failed to converge:

I(V_V5) = -15.48nA \ 0A

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings

ITL4 = 125

ABSTOL = 1.26e-010

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These supply currents failed to converge:

I(V_V5) = -15.48nA \ 0A

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|------|---------|------|-----------|-------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |

(N01050) 542.2E-27 (N03510) 0.0000 (N15257) 3.727E-09

Resuming Simulation with the following settings

ITL4 = 1000

ABSTOL = 1.58e-008

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|------|---------|------|---------|------|---------|------|---------|
|------|---------|------|---------|------|---------|------|---------|

| | | | | | | | |
|------|--------|------|-----------|-------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
|------|--------|------|-----------|-------|-----------|-------|-----------|

(N01050) 542.2E-27 (N03510) 0.0000 (N15257) 3.727E-09

Resuming Simulation with the following settings

RELTOL = 0.0086

ABSTOL = 1e-006

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings

RELTOL = 0.05

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming could not converge the circuit, restarting it now

These voltages failed to converge:

V(N03510) = 1.000V \ 0V
V(10) = 10.00GV \ 10.00GV

These supply currents failed to converge:

I(E_E2) = -1.001nA \ 0A

Discontinuing simulation due to convergence problem

Restarting Simulation with the following settings

ITL4 = 125

ABSTOL = 1.26e-010

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These supply currents failed to converge:

I(V_V5) = -15.48nA \ 0A

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings

ITL4 = 1000

ABSTOL = 1.58e-008

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|------|---------|------|---------|------|---------|------|---------|
|------|---------|------|---------|------|---------|------|---------|

| | | | | | | | |
|------|--------|------|-----------|-------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
|------|--------|------|-----------|-------|-----------|-------|-----------|

| | | | | | |
|----------|-----------|----------|--------|----------|-----------|
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 |
|----------|-----------|----------|--------|----------|-----------|

Resuming Simulation with the following settings

RELTOL = 0.0086

ABSTOL = 1e-006

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings
RELTOL = 0.05

Convergence problem in transient analysis at Time = 4.768E-15
Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming could not converge the circuit, restarting it now

These voltages failed to converge:

V(N03510) = 1.000V \ 0V
V(10) = 10.00GV \ 10.00GV

These supply currents failed to converge:

I(E_E2) = -1.001nA \ 0A
Discontinuing simulation due to convergence problem
Restarting Simulation with the following settings
ITL4 = 1000
ABSTOL = 1.58e-008

Convergence problem in transient analysis at Time = 4.768E-15
Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:
E_E2 E_E3
Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings
RELTOL = 0.0086
ABSTOL = 1e-006

Convergence problem in transient analysis at Time = 4.768E-15
Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 628.3E-21 | (10) | 10.00E+09 | (11) | 3.834E-09 |
| (N01050) | 542.2E-27 | (N03510) | 0.0000 | (N15257) | 3.727E-09 | | |

Resuming Simulation with the following settings

RELTOL = 0.05

Convergence problem in transient analysis at Time = 4.768E-15

Time step = 4.768E-15, minimum allowable step size = 12.00E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|------|---------|------|---------|------|---------|------|---------|
|------|---------|------|---------|------|---------|------|---------|

(3) 0.0000 (4) 628.3E-21 (10) 10.00E+09 (11) 3.834E-09

(N01050) 542.2E-27 (N03510) 0.0000 (N15257) 3.727E-09

Resuming could not converge the circuit, restarting it now

These voltages failed to converge:

V(N03510) = 1.000V \ 0V

V(10) = 10.00GV \ 10.00GV

Discontinuing simulation due to convergence problem

Restarting Simulation with the following settings

RELTOL = 0.0086

Convergence problem in transient analysis at Time = 596.0E-18

Time step = 596.0E-18, minimum allowable step size = 1.396E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|------|---------|------|---------|------|---------|------|---------|
|------|---------|------|---------|------|---------|------|---------|

(3) 0.0000 (4) 32.01E-21 (10) 10.00E+09 (11) 479.2E-12

(N01050) 6.253E-27 (N03510) 0.0000 (N15257) 465.9E-12

Resuming Simulation with the following settings

RELTOL = 0.05

ABSTOL = 1e-006

Convergence problem in transient analysis at Time = 596.0E-18
Time step = 596.0E-18, minimum allowable step size = 1.396E-15

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 32.01E-21 | (10) | 10.00E+09 | (11) | 479.2E-12 |
| (N01050) | 6.253E-27 | (N03510) | 0.0000 | (N15257) | 465.9E-12 | | |

Resuming could not converge the circuit, restarting it now

These voltages failed to converge:

V(N03510) = 1.000V \ 0V

V(10) = 10.00GV \ 10.00GV

Discontinuing simulation due to convergence problem

Restarting Simulation with the following settings

RELTOL = 0.05

Convergence problem in transient analysis at Time = 74.51E-18
Time step = 74.51E-18, minimum allowable step size = 240.0E-18

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 697.0E-24 | (10) | 10.00E+09 | (11) | 59.90E-12 |
| (N01050) | 78.01E-30 | (N03510) | 0.0000 | (N15257) | 58.24E-12 | | |

Resuming Simulation with the following settings

ABSTOL = 1e-006

Convergence problem in transient analysis at Time = 74.51E-18

Time step = 74.51E-18, minimum allowable step size = 240.0E-18

These voltages failed to converge:

V(10) = 10.00GV \ 0V

These devices failed to converge:

E_E2 E_E3

Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 697.0E-24 | (10) | 10.00E+09 | (11) | 59.90E-12 |
| (N01050) | 78.01E-30 | (N03510) | 0.0000 | (N15257) | 58.24E-12 | | |

Resuming could not converge the circuit, restarting it now

These voltages failed to converge:

V(N03510) = 1.000V \ 0V
V(10) = 10.00GV \ 10.00GV

Discontinuing simulation due to convergence problem

ERROR(ORPSIM-15138): Convergence problem in transient analysis at Time = 74.51E-18.
Time step = 74.51E-18, minimum allowable step size = 240.0E-18

These voltages failed to converge:

V(10) = 10.00GV \ 10.00GV

ERROR(ORPSIM-15659): Discontinuing simulation due to convergence problem

Last node voltages tried were:

| NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE | NODE | VOLTAGE |
|----------|-----------|----------|-----------|----------|-----------|-------|-----------|
| (3) | 0.0000 | (4) | 697.0E-24 | (10) | 10.00E+09 | (11) | 59.90E-12 |
| (N01050) | 690.5E-24 | (N03510) | 1.0000 | (N15257) | 58.24E-12 | | |

**** Interrupt ****