

*D1007 (per side)

*PSPICE MODEL FOR POINT NINE TECHNOLOGIES, Inc RF N-CHANNEL VERTICAL DMOS POWER FET
*PRELIMINARY DATA, SEPTEMBER 1995

*THIS IS A PUSH-PULL DEVICE, MODEL DATA IS PER SIDE
*TO GENERATE S PARAMETERS MATCHING DATA SHEET, SET VG=3.7V FOR IDQ=1A

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*      ____GATE
*      I      ____DRAIN
*      I      I      ____SOURCE
*      I      I      I
.SUBCKT D1007 10 20 30
LG 10 11 1.71N
RGATE 11 12 0.78
CG 10 30 0.05P
CRSS 12 17 2.5P
CISS 12 14 60P
LS 14 30 0.30N
CS 14 30 0.1P
LD 17 20 0.85N
CD 20 30 1.44P
R_RC 16 17 35.73
C_RC 14 16 11.8P
MOS 13 12 14 15 D1007MOS L=0.71U W=0.56332 ;D G S B LEVEL1
JFET 17 14 13 D1007JF ;D G S
DBODY 14 17 D1007DB ;P N

.MODEL D1007MOS NMOS (VTO=2.2 KP=1.8E-5 LAMBDA=0.1 RD=0.25 RS=0.5)
.MODEL D1007JF NJF (VTO=-7.5 BETA=0.04 LAMBDA=1)
.MODEL D1007DB D (CJO=88.5P RS=0.25 VJ=0.7 M=0.33 BV=70)
.ENDS
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D1007.s2p (each side)

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!      Vds=28V, Idq=1A
#      MHz S MA R 50
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!Freq	S11		S21		S12		S22	
!MHz	mag	ang	mag	ang	mag	ang	mag	ang
100	0.767	-135	22.646	88	0.0155	9	0.531	-103
200	0.813	-153	10.116	57	0.0099	4	0.692	-131
300	0.841	-161	5.623	39	0.0076	49	0.794	-143
400	0.861	-169	3.548	25	0.013	79	0.841	-151
500	0.882	-175	2.82	20	0.021	78	0.875	-156
600	0.902	180	2.093	14	0.0285	78	0.91	-161
700	0.923	174	1.365	9	0.0376	77	0.944	-166
800	0.912	170	1.096	2	0.0457	66	0.944	-170
900	0.923	164	0.902	-3	0.0484	66	0.933	-176
1000	0.923	161	0.724	-4	0.596	64	0.944	-177