

*D1013

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

*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 D1013 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 D1013MOS L=0.71U W=0.056332 ;D G S B LEVEL1
JFET 17 14 13 D1013JF ;D G S
DBODY 14 17 D1013DB ;P N

.MODEL D1013MOS NMOS (VTO=2.2 KP=1.8E-5 LAMBDA=0.1 RD=0.25 RS=0.5)
.MODEL D1013JF NJF (VTO=-7.5 BETA=0.04 LAMBDA=1)
.MODEL D1013DB D (CJO=88.5P RS=0.25 VJ=0.7 M=0.33 BV=70)
.ENDS
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D1013.s2p

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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	0.759	-133	22.387	88	0.0151	8	0.537	-103
200	0.804	-152	9.886	57	0.009	5	0.692	-131
300	0.851	-161	5.433	40	0.0079	59	0.785	-143
400	0.871	-169	3.428	27	0.0143	83	0.822	-151
500	0.888	-171	2.73	22	0.022	81	0.856	-156
600	0.906	-173	2.032	17	0.31	80	0.889	-161
700	0.923	-175	1.334	12	0.0389	78	0.923	-166
800	0.923	-170	1.072	6	0.0462	72	0.923	-170
900	0.933	164	0.891	0	0.055	66	0.923	-176
1000	0.933	161	0.724	0	0.0461	64	0.923	-177