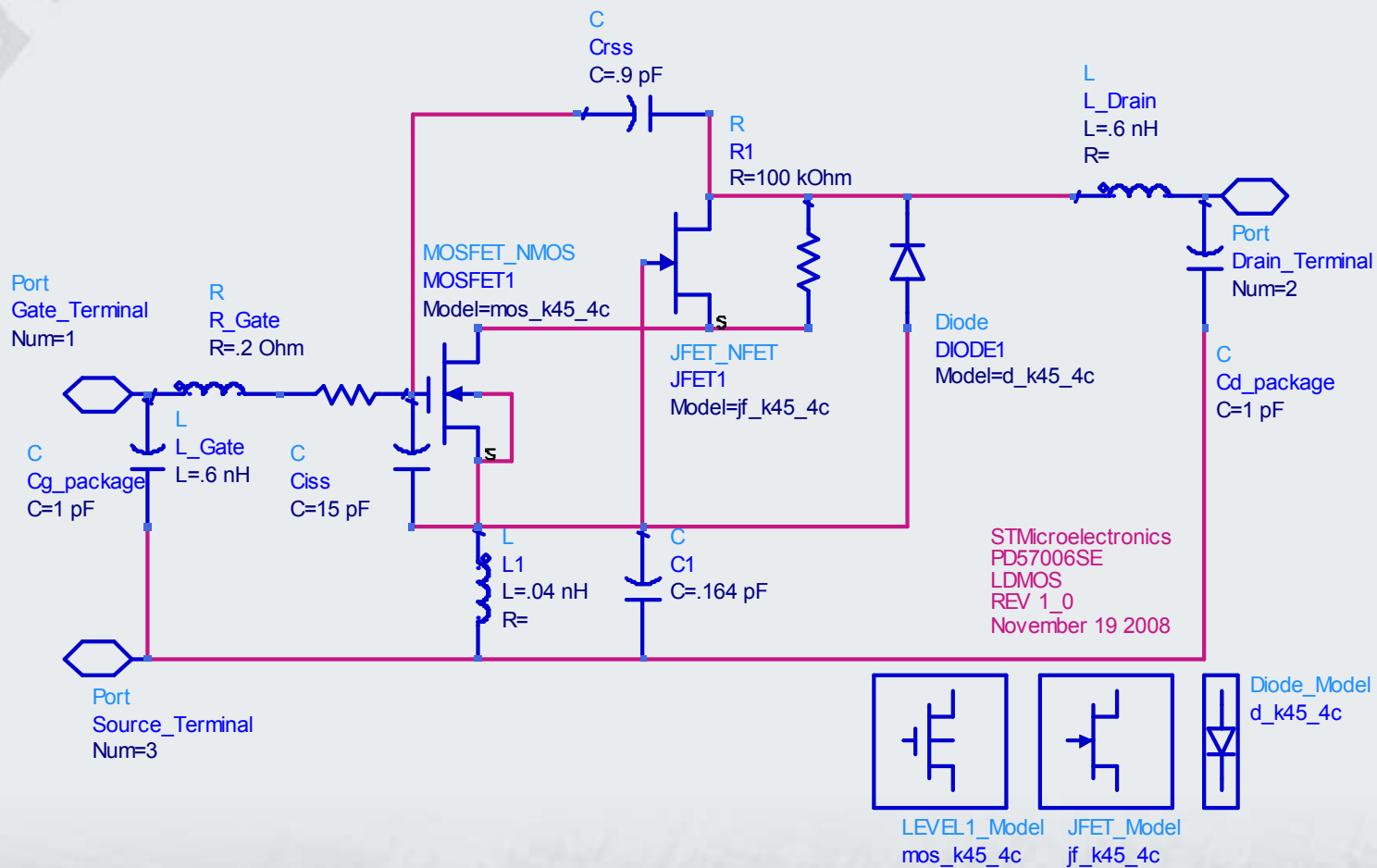


PD57006SE\_rev\_1  
Model validation



Quakertown , PA  
Qtn-jp-216-rev1  
November 19 , 2008

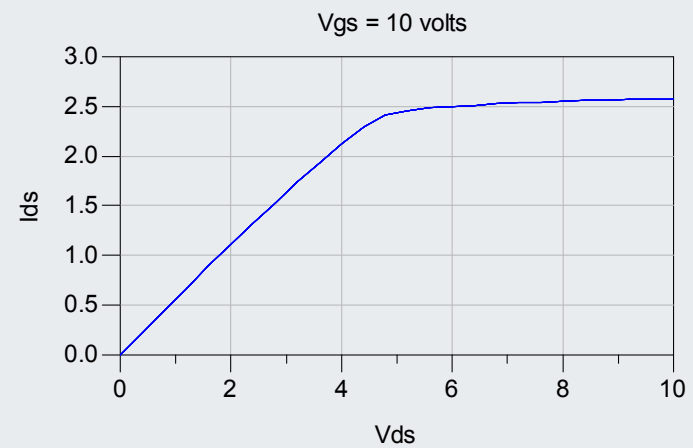
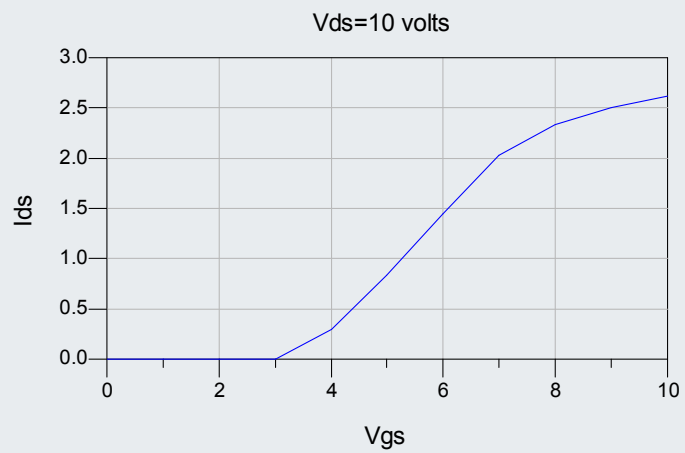


PD57006SE model



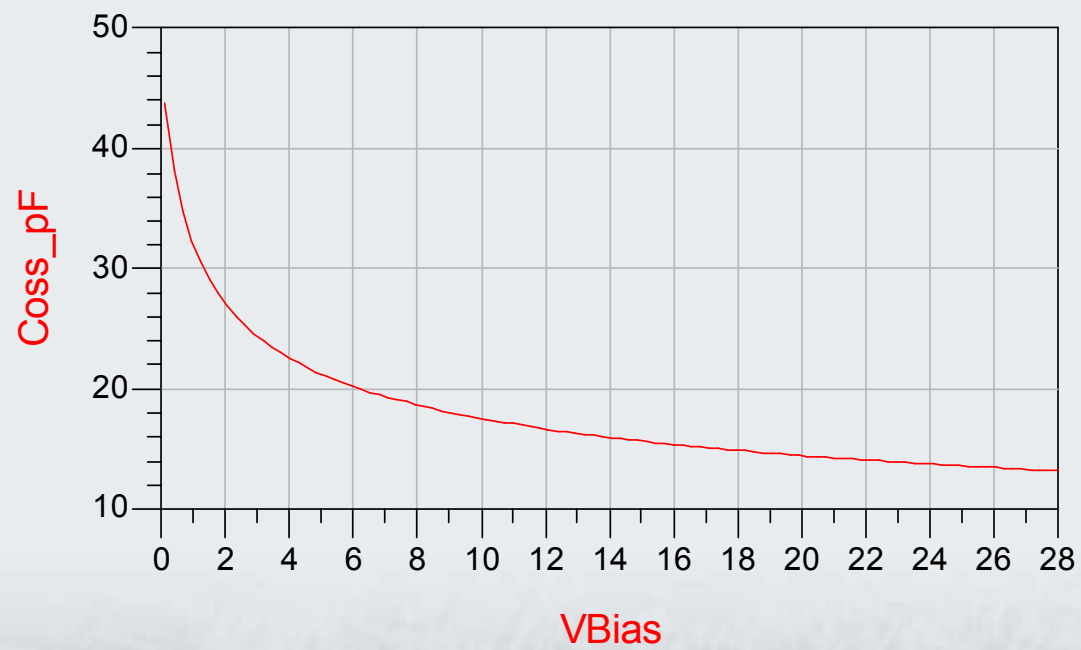
# PD57006SE

## DC



# PD57006SE

## Cds



# PD57006SE

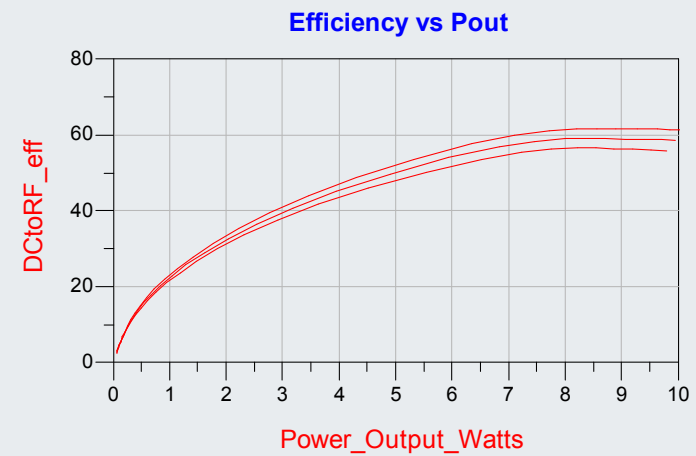
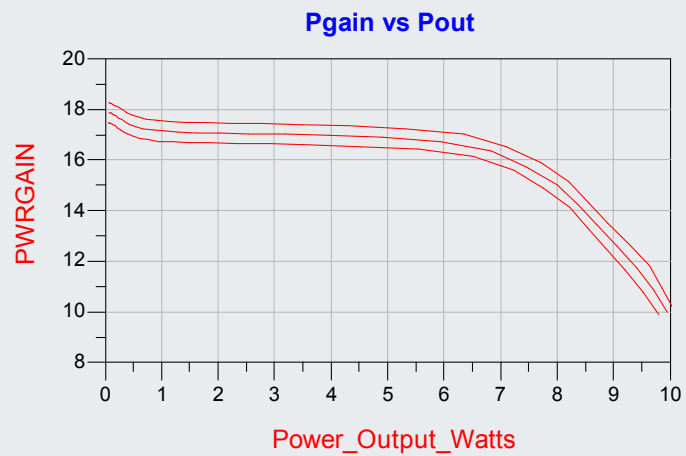
## S-parameter

freq	S(1,1)	S(2,1)	S(1,2)	S(2,2)
50.00 MHz	0.910 / -57.624	34.217 / 140.532	0.023 / 50.872	0.884 / -51.813
100.0 MHz	0.810 / -93.429	24.188 / 116.237	0.033 / 26.917	0.752 / -84.573
150.0 MHz	0.765 / -113.658	17.681 / 101.364	0.036 / 12.388	0.691 / -103.689
200.0 MHz	0.752 / -125.827	13.584 / 90.914	0.036 / 2.288	0.672 / -115.547
250.0 MHz	0.753 / -133.794	10.843 / 82.764	0.036 / -5.507	0.674 / -123.534
300.0 MHz	0.761 / -139.440	8.900 / 75.988	0.035 / -11.919	0.686 / -129.366
350.0 MHz	0.773 / -143.728	7.456 / 70.136	0.034 / -17.396	0.702 / -133.935
400.0 MHz	0.786 / -147.174	6.346 / 64.966	0.033 / -22.179	0.721 / -137.717
450.0 MHz	0.800 / -150.071	5.469 / 60.332	0.031 / -26.412	0.741 / -140.977
500.0 MHz	0.814 / -152.588	4.762 / 56.139	0.030 / -30.185	0.760 / -143.867
550.0 MHz	0.827 / -154.830	4.183 / 52.318	0.028 / -33.564	0.778 / -146.479
600.0 MHz	0.840 / -156.862	3.703 / 48.819	0.027 / -36.597	0.794 / -148.870
650.0 MHz	0.851 / -158.729	3.299 / 45.601	0.025 / -39.319	0.810 / -151.079
700.0 MHz	0.862 / -160.460	2.958 / 42.630	0.024 / -41.759	0.824 / -153.134
750.0 MHz	0.872 / -162.078	2.666 / 39.879	0.022 / -43.939	0.837 / -155.055
800.0 MHz	0.880 / -163.598	2.414 / 37.323	0.021 / -45.875	0.848 / -156.859
850.0 MHz	0.888 / -165.033	2.197 / 34.941	0.019 / -47.580	0.859 / -158.559
900.0 MHz	0.895 / -166.393	2.007 / 32.716	0.018 / -49.059	0.868 / -160.166
950.0 MHz	0.902 / -167.688	1.842 / 30.630	0.017 / -50.316	0.877 / -161.689
1.000 GHz	0.908 / -168.924	1.696 / 28.672	0.015 / -51.346	0.884 / -163.138
1.050 GHz	0.913 / -170.108	1.567 / 26.827	0.014 / -52.140	0.891 / -164.519
1.100 GHz	0.918 / -171.244	1.452 / 25.085	0.013 / -52.680	0.898 / -165.839
1.150 GHz	0.923 / -172.339	1.350 / 23.437	0.012 / -52.938	0.903 / -167.105
1.200 GHz	0.927 / -173.396	1.259 / 21.873	0.011 / -52.871	0.909 / -168.320
1.250 GHz	0.930 / -174.418	1.177 / 20.387	0.010 / -52.420	0.913 / -169.490
1.300 GHz	0.934 / -175.410	1.103 / 18.972	0.009 / -51.497	0.918 / -170.620
1.350 GHz	0.937 / -176.374	1.037 / 17.622	0.008 / -49.976	0.922 / -171.712
1.400 GHz	0.939 / -177.313	0.976 / 16.330	0.007 / -47.673	0.925 / -172.771
1.450 GHz	0.942 / -178.230	0.921 / 15.093	0.006 / -44.321	0.928 / -173.800
1.500 GHz	0.944 / -179.127	0.872 / 13.906	0.005 / -39.536	0.931 / -174.801



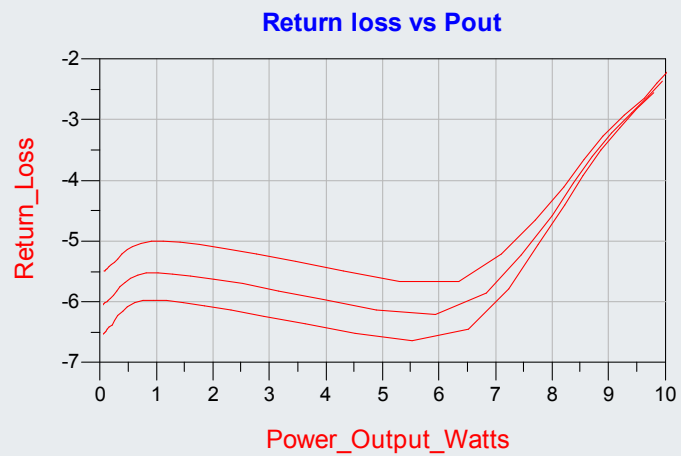
# PD57006SE

## 925 MHz – 960 MHz Large Signal RF



# PD57006SE

## 925 MHz – 960 MHz Large Signal RF



# GENERIC NETLIST

- \*PD57006SE\_rev1\_0
- \*11/19/2008
- \*STMicroelectronics
- \*port 1 = GATE , 2 = Drain , 3 = Source
- \*
- .SUBCKT PD57006SE 10 20 30
- LGATE 10 11 .6N
- RGATE 11 12 3
- CG 10 30 1P
- CRSS 12 17 .9P
- CISS 12 14 15P
- LS 14 30 0.04N
- CS 14 30 .164P
- R 17 13 100K
- LD 17 20 .5N
- CD 20 30 1P
- MOS 13 12 14 14 mos\_57006SE L=.6UM W= 17mM
- JFET 17 14 13 jf\_57006SE
- DBODY 14 17 d\_57006SE
- .MODEL mos\_57006SE nmos (vto=3 KP=2E-5 LAMBDA=0.15 RD=0.75 RS=0.75)
- .MODEL jf\_57006SE njf (VTO=-5 BETA=6 LAMBDA=1)
- .MODEL d\_57006SE d (CJO=45p RS=0.25 VJ=.4 M=0.325 BV=80)
- .ENDS







LEVEL1\_Model  
mos\_57006se  
NMOS=yes  
PMOS=no  
Vto=3  
Kp=2e-5  
Gamma=  
Phi=  
Lambda=0.15  
Rd=0.75  
Rs=0.75  
Cbd=  
Cbs=  
Is=  
Pb=  
Cgso=  
Cgdo=

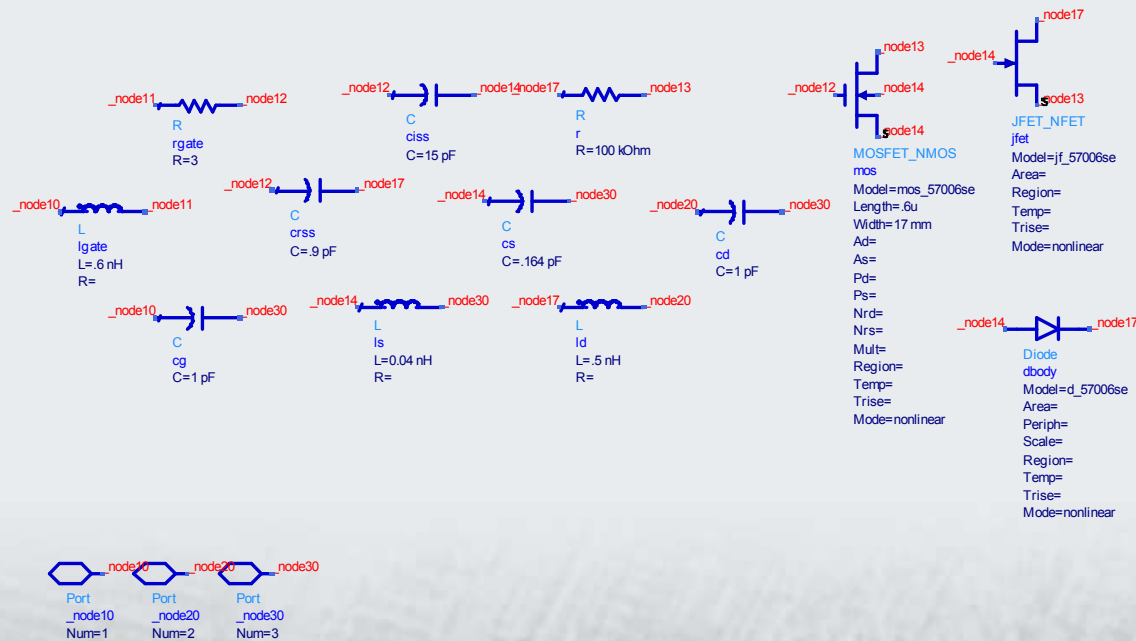
Cgbo=  
Rsh=  
Cj=  
Mjsw=  
Js=  
Tox=  
Nsub=  
Tpg=  
Ld=  
Uo=  
Nlev=  
Gdsnoi=  
Kf=  
Af=  
Fc=  
Rg=  
Rds=  
Tnom=27  
Trise=  
N=  
Tt=  
Ffe=  
Imax=  
Imelt=  
AllParams=



JFET\_Model  
jf\_57006se  
NFET=yes  
PFET=no  
Vto=-5  
Beta=6  
Lambda=1  
Rd=  
Rs=  
Is=  
Cgs=  
Cgd=  
Pb=  
Fc=  
Tnom=27  
Trise=  
Kf=  
Af=  
Imax=  
Imelt=  
N=  
Nr=  
Vt=  
M=  
Vt0c=  
Beta1ce=  
Xti=  
Ffe=  
Gdsnoise=no  
AllParams=



Diode\_Model  
d\_57006se  
Is=  
Rs=0.25  
Gleak=  
N=  
Cd=  
Cjo=45 pF  
Vj=4  
M=0.325  
Fc=  
Imax=  
Imelt=  
Isr=  
Nr=  
Ikf=  
Bv=80  
Ibv=1e-10  
Nbv=  
Ibv1=  
Kf=  
Af=  
Ffe=  
Jsw=  
Rsw=  
Gleaksw=  
Ns=  
Ikp=  
Cjsw=  
Msw=  
Vjsw=  
Fcs=  
AllowScaling=no  
Tnom=27  
Trise=  
Xti=  
Eg=  
AllParams=



Imported netlist

