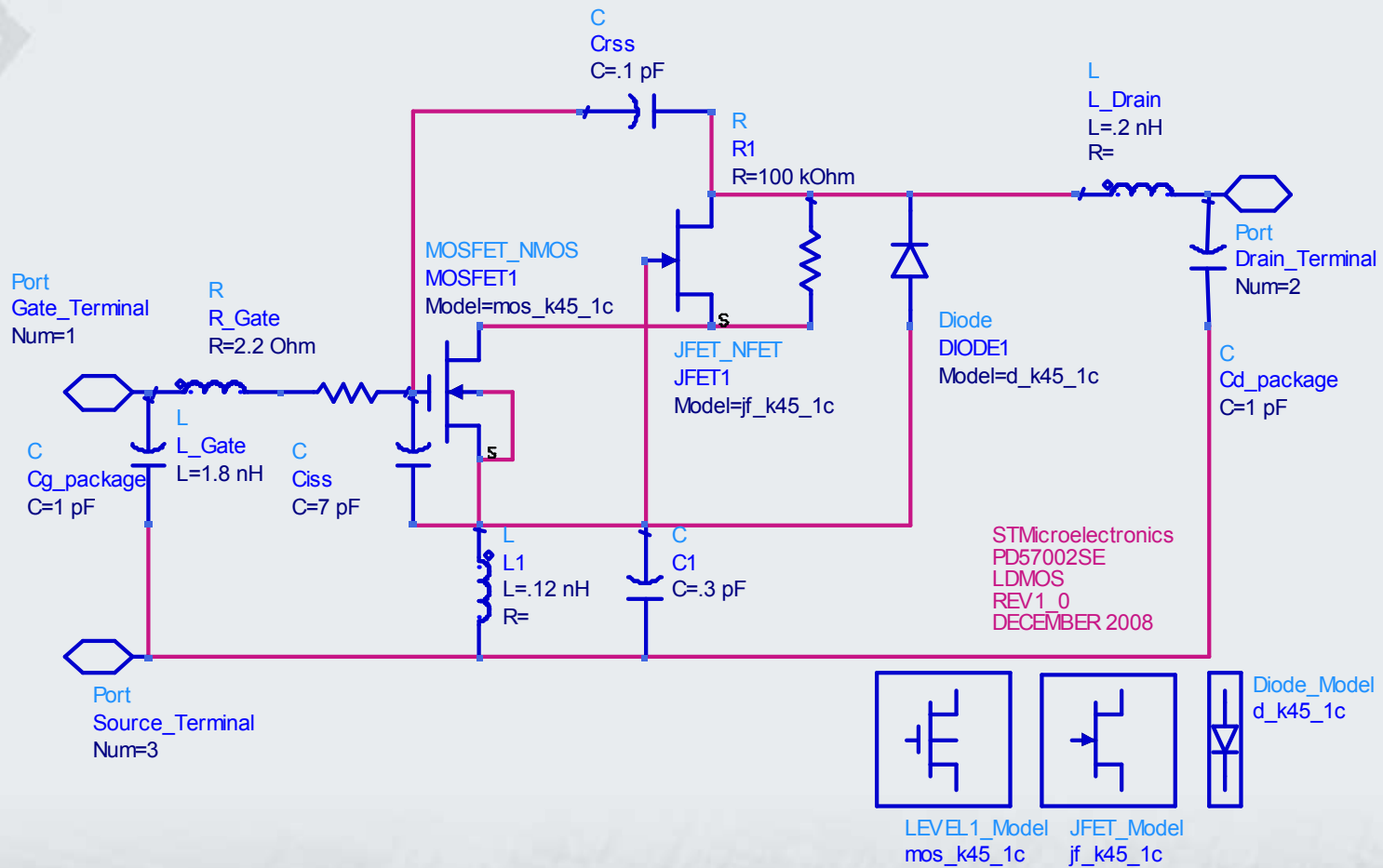


# PD57002SE\_rev\_1 Model Information



Quakertown , PA  
Qtn-jp-307-rev0  
December 18 , 2008

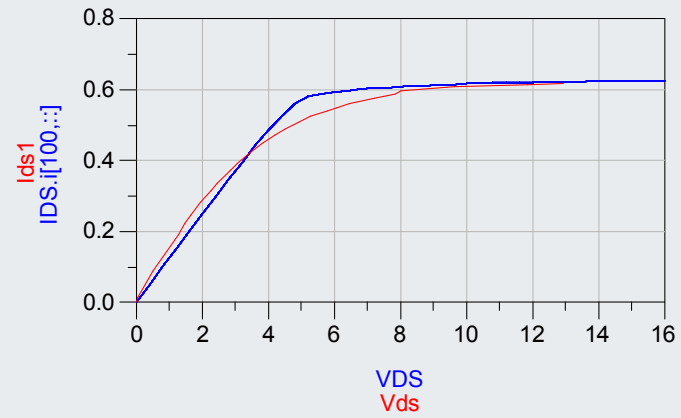


PD57002SE model



# PD57002SE

## DC



**RED** =Measured



# PD57002SE

## Cds



# PD57002SE

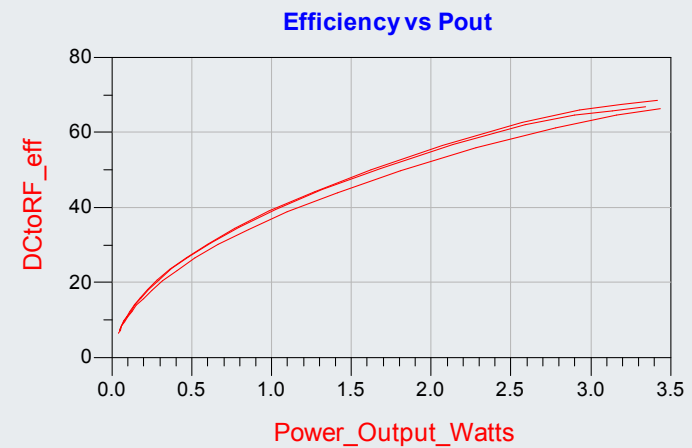
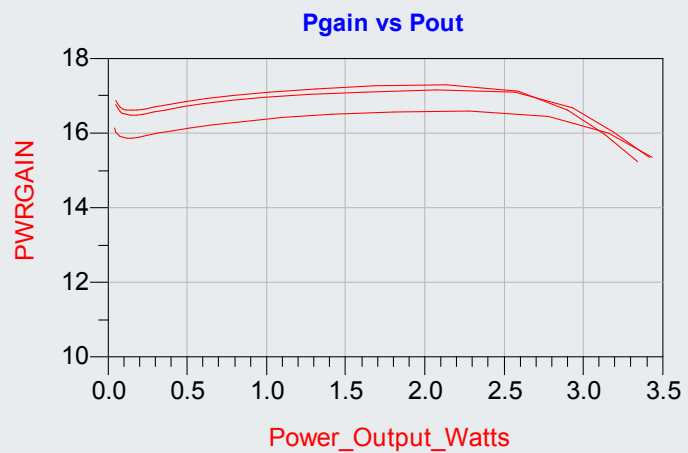
## S-parameter

freq	S(1,1)	S(2,1)	S(1,2)	S(2,2)
50.00 MHz	0.996 / -15.420	10.170 / 166.515	0.003 / 76.758	0.997 / -11.441
100.0 MHz	0.987 / -30.338	9.770 / 153.446	0.006 / 63.936	0.989 / -22.565
150.0 MHz	0.973 / -44.357	9.181 / 141.117	0.008 / 51.867	0.979 / -33.127
200.0 MHz	0.958 / -57.245	8.483 / 129.719	0.010 / 40.749	0.969 / -42.980
250.0 MHz	0.943 / -68.921	7.746 / 119.319	0.011 / 30.656	0.960 / -52.071
300.0 MHz	0.931 / -79.417	7.020 / 109.895	0.011 / 21.580	0.952 / -60.408
350.0 MHz	0.920 / -88.826	6.337 / 101.377	0.011 / 13.470	0.947 / -68.031
400.0 MHz	0.912 / -97.269	5.711 / 93.676	0.010 / 6.262	0.943 / -74.995
450.0 MHz	0.906 / -104.870	5.147 / 86.701	0.009 / -0.094	0.941 / -81.358
500.0 MHz	0.901 / -111.743	4.644 / 80.364	0.008 / -5.612	0.941 / -87.177
550.0 MHz	0.897 / -117.994	4.198 / 74.588	0.007 / -10.239	0.941 / -92.503
600.0 MHz	0.895 / -123.712	3.804 / 69.303	0.006 / -13.772	0.942 / -97.386
650.0 MHz	0.893 / -128.972	3.457 / 64.449	0.004 / -15.602	0.944 / -101.869
700.0 MHz	0.892 / -133.841	3.151 / 59.975	0.003 / -13.626	0.946 / -105.993
750.0 MHz	0.891 / -138.372	2.881 / 55.836	0.001 / 3.625	0.948 / -109.794
800.0 MHz	0.890 / -142.613	2.642 / 51.993	0.001 / 84.813	0.950 / -113.305
850.0 MHz	0.890 / -146.604	2.430 / 48.412	0.002 / 115.951	0.952 / -116.553
900.0 MHz	0.889 / -150.377	2.241 / 45.064	0.004 / 121.157	0.954 / -119.565
950.0 MHz	0.889 / -153.963	2.074 / 41.924	0.006 / 121.632	0.955 / -122.365
1.000 GHz	0.888 / -157.387	1.924 / 38.969	0.007 / 120.631	0.957 / -124.972
1.050 GHz	0.888 / -160.670	1.790 / 36.179	0.009 / 119.043	0.959 / -127.405
1.100 GHz	0.887 / -163.832	1.670 / 33.538	0.011 / 117.196	0.961 / -129.681
1.150 GHz	0.887 / -166.890	1.561 / 31.030	0.013 / 115.235	0.962 / -131.814
1.200 GHz	0.886 / -169.858	1.464 / 28.643	0.015 / 113.232	0.963 / -133.817
1.250 GHz	0.885 / -172.751	1.375 / 26.363	0.016 / 111.222	0.965 / -135.701
1.300 GHz	0.885 / -175.579	1.295 / 24.181	0.018 / 109.223	0.966 / -137.477
1.350 GHz	0.884 / -178.354	1.223 / 22.087	0.020 / 107.247	0.967 / -139.155
1.400 GHz	0.883 / 178.914	1.156 / 20.072	0.022 / 105.297	0.968 / -140.742
1.450 GHz	0.882 / 176.217	1.096 / 18.129	0.024 / 103.373	0.969 / -142.247
1.500 GHz	0.880 / 173.546	1.041 / 16.251	0.025 / 101.476	0.970 / -143.675



# PD57002SE

## 925 MHz – 960 MHz Large Signal RF

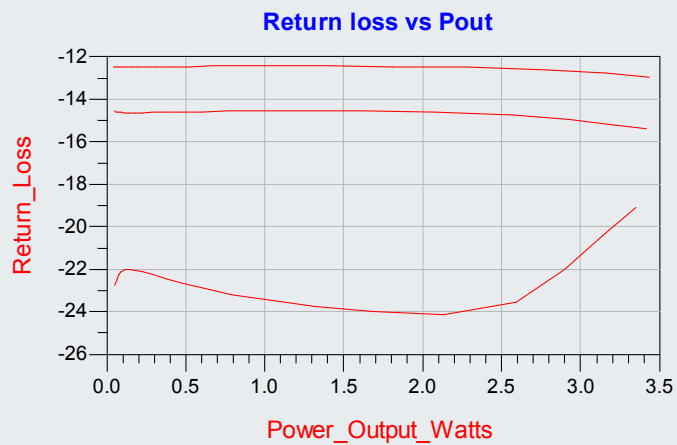


Data sheet impedances



# PD57002SE

## 925 MHz – 960 MHz Large Signal RF



Data sheet impedances



# GENERIC NETLIST

- \*PD57002SE\_rev1\_0
- \*12/18/2008
- \*STMicroelectronics
- \*port 1 = GATE , 2 = Drain , 3 = Source
- \*
- .SUBCKT PD57002SE 10 20 30
- LGATE 10 11 1.8N
- RGATE 11 12 2.2
- CG 10 30 1P
- CRSS 12 17 .1P
- CISS 12 14 7P
- LS 14 30 0.12N
- CS 14 30 .3P
- R 17 13 100K
- LD 17 20 .2N
- CD 20 30 1P
- MOS 13 12 14 14 mos\_57002SE L=.6UM W= 4.25mM
- JFET 17 14 13 jf\_57002SE
- DBODY 14 17 d\_57002SE
- .MODEL mos\_57002SE nmos (vto=3 KP=.9E-5 LAMBDA=0.3 RD=2.8 RS=2.8)
- .MODEL jf\_57002SE njf (VTO=-5.25 BETA=1 LAMBDA=1)
- .MODEL d\_57002SE d (CJO=9p RS=0.25 VJ=.4 M=0.15 BV=80)
- .ENDS







LEVEL1\_Model

mos\_57002se  
NMOS=yes  
PMOS=no  
Vto=3  
Kp=.9e-5  
Gamma=  
Phi=  
Lambda=0.3  
Rd=2.8  
Rs=2.8  
Cbd=  
Cbs=  
Is=  
Pb=  
Cgso=  
Cgdo=

Cgbo=  
Rsh=  
Cj=  
Mj=  
Cjsw=  
Mjsw=  
Js=  
Tox=  
Nsub=  
Nss=  
Tpg=  
Ld=  
Uo=  
Nlev=  
Gdsnoi=

Kf=  
Af=  
Fc=  
Rg=  
Rds=  
Tnom=27  
Tt=  
N=  
Ffe=  
Imax=  
Imelt=  
AllParams=



JFET\_Model

jf\_57002se  
NFET=yes  
PFET=no  
Vto=-5.25  
Beta=1  
Lambda=1  
Rd=  
Rs=  
Is=  
Cgs=  
Cgd=  
Pb=  
Fc=  
Tnom=27  
Trise=  
Kf=

Af=  
Imax=  
Imelt=  
N=  
Isr=  
Nr=  
Alpha=  
Vt0c=  
Betacoe=  
Xti=  
Ffe=  
Gdsnoise=no  
AllParams=

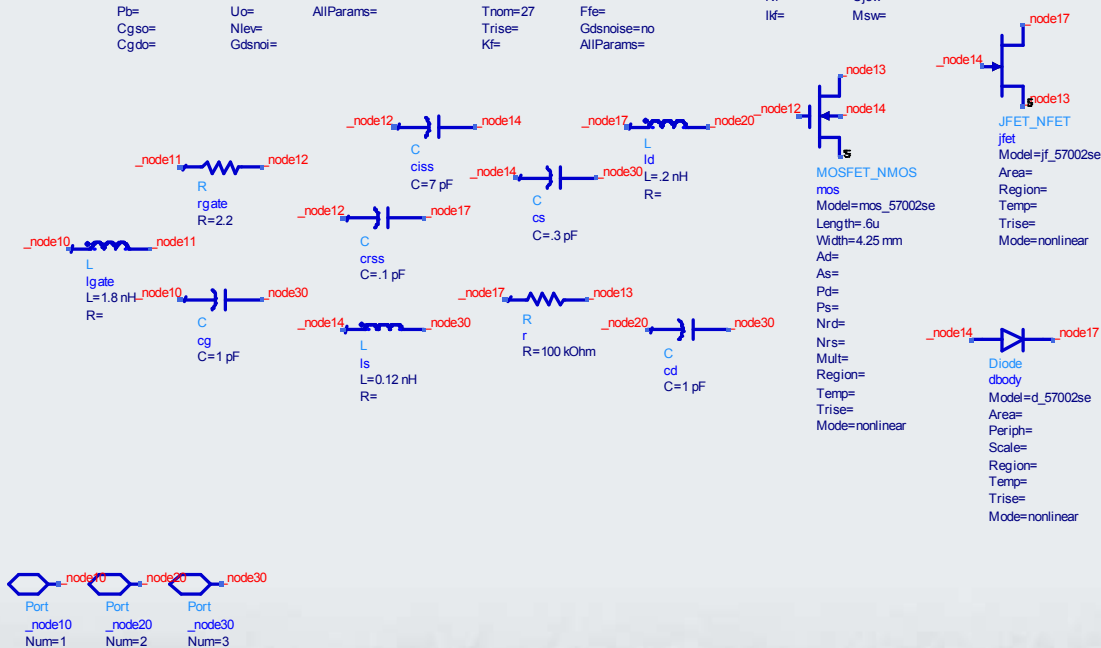


Diode\_Model  
d\_57002se

Is=  
Rs=0.25  
Gleak=  
N=  
Tt=  
Cd=  
Cjo=9 pF  
Vj=.4  
M=0.15  
Fc=  
Imax=  
Imelt=  
Isr=  
Nr=  
Ik=

Bv=80  
Ibv=1e-10  
Nbv=  
Ibvl=  
Nbv=  
Kf=  
Af=  
Ffe=  
Jsw=  
Rs=  
Ns=  
Ik=  
Cjsw=  
Msw=

Vjsw=  
Fcs=  
AllowScaling=no  
Tnom=27  
Trise=  
Xti=  
Eg=  
AllParams=



Imported netlist