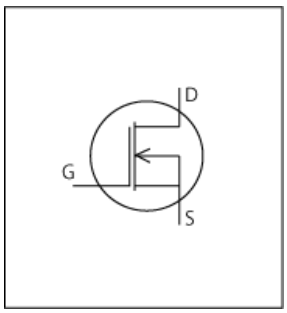
LTspice Model
NMOS
Infineon
IPW65R080CFDA



Model Information

Model	A macro model based on BSIM3 model	
Call Name	MDC_IPW65R080CFDA_LT	
Pin Assign	1:G 2:D 3:S	
File List	Model Library	MDC_IPW65R080CFDA_LT01.lib
	Model Report	MDC_IPW65R080CFDA_LT.pdf (this file)
Verified Simulator Version		LTspice version XVII
Note		

References

The information which was used for modeling is as follow:

[Data Sheet]

- ●Date/Version: Rev. 2.1
- ●Product name: IPW65R080CFDA
- ●Company name: Infineon Technologies AG
- ●Characteristics: IdVds[Vgs],Rds(on)Id[Vgs],Rds(on)Temp[Id],IdVgs[Temp],VgsQg[Vdd],IsVsd[Temp],Ciss,Coss,Crss,tdon,tdoff,tf,tr

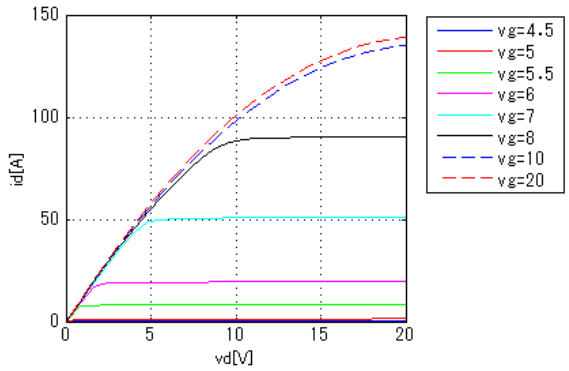
Simulation Range

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

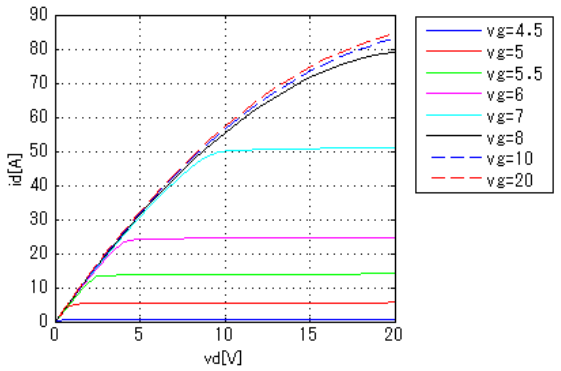
Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	650	V
Gate-source voltage (DC)	0	to	20	V
Temperature	-40	to	150	deg C

Simulation results are following.
Explanatory notes — : simulated

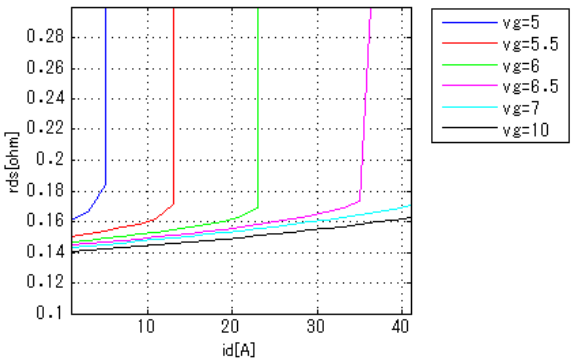
IdVds[Vgs]
Temp. = 25deg C



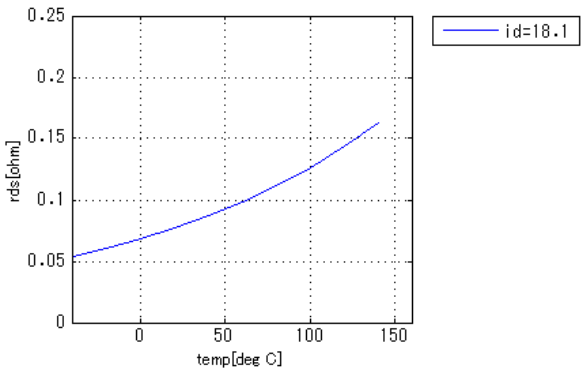
IdVds[Vgs]
Temp. = 125deg C



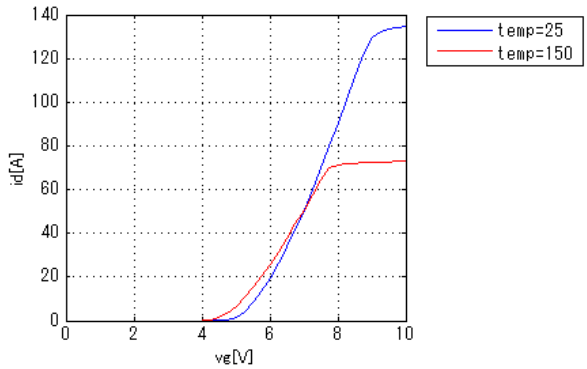
Rds(on)Id[Vgs]



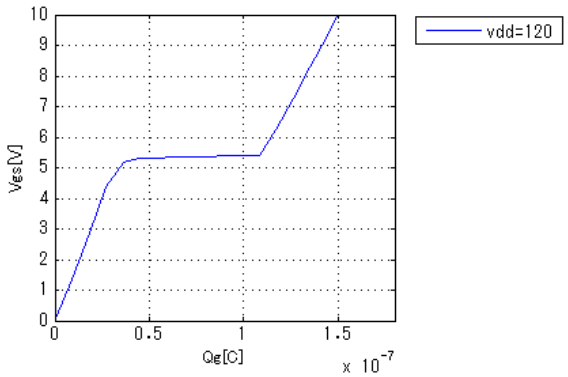
Rds(on)Temp[Id]
Vgs = 10V



IdVgs[Temp]
Vds = 20V



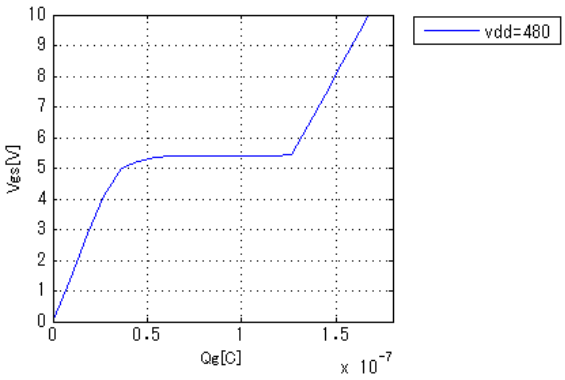
VgsQg[Vdd]
Id = 6.5A



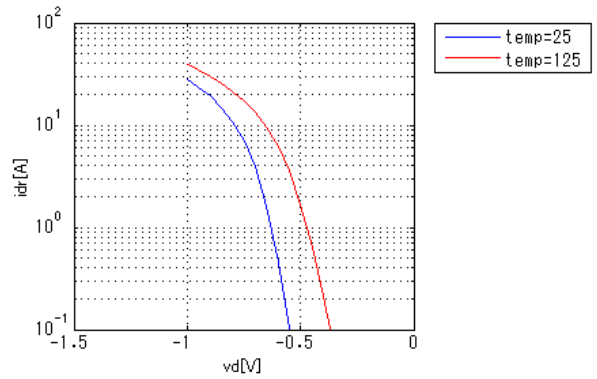
Simulation results are following.
Explanatory notes — : simulated

VgsQg[Vdd]

Id = 6.5A

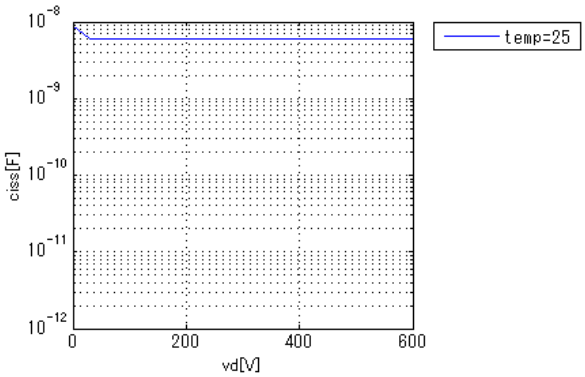


IsVsd[Temp]



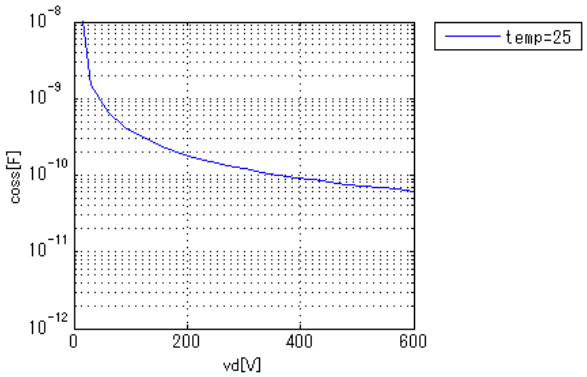
Ciss

Freq. = 1MHz



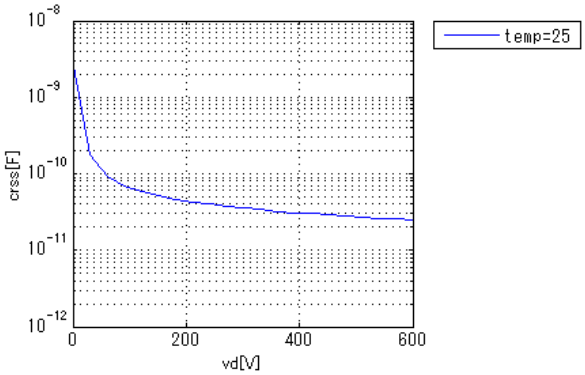
Coss

Freq. = 1MHz



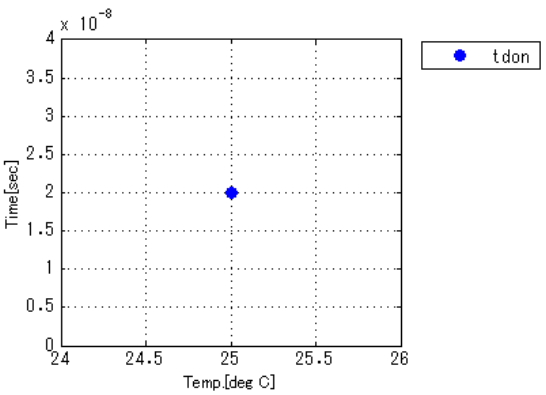
Crss

Freq. = 1MHz



tdon

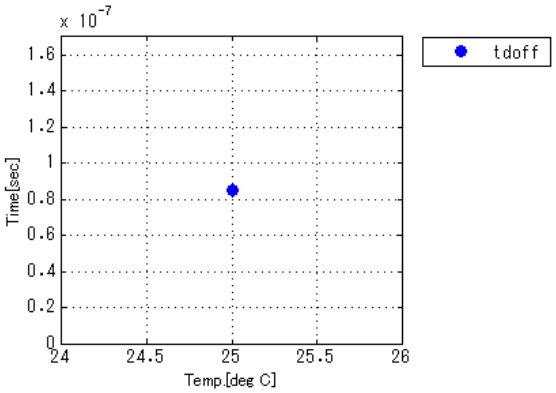
Vdd = 400V, Id = 26.3A, +Vg = 13V, -Vg = 0V, Rg = 1.8ohm



Simulation results are following.
Explanatory notes — : simulated

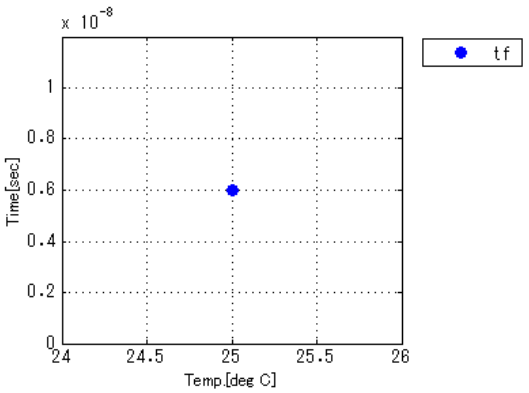
tdoff

Vdd = 400V, Id = 26.3A, +Vg = 13V, -Vg = 0V, Rg = 1.8ohm



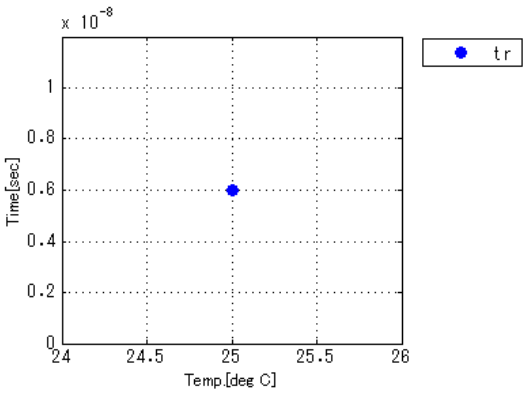
tf

Vdd = 400V, Id = 26.3A, +Vg = 13V, -Vg = 0V, Rg = 1.8ohm



tr

Vdd = 400V, Id = 26.3A, +Vg = 13V, -Vg = 0V, Rg = 1.8ohm



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