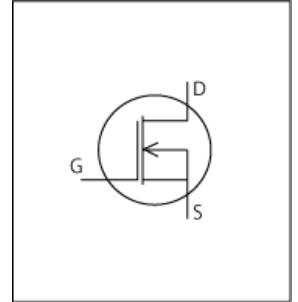


PSpice Model

NMOS

Infineon Technologies AG

IAUC60N04S6N050H



Model Information

Model A macro model based on BSIM3 model
Call Name MDC_IAUC60N04S6N050H_PS
Pin Assign 1:G 2:Phase 3:Phase 4:G 5:ground 6:ground 7:battery 8:battery
File List Model Library MDC_IAUC60N04S6N050H_PS01.lib
 Model Report MDC_IAUC60N04S6N050H_PS.pdf (this file)

Verified Simulator Version PSpice version 16.6
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 2020-09-22 Rev. 1.0
- Product name IAUC60N04S6N050H
- Company name Infineon Technologies AG
- Characteristics IdVgs[Temp], IdVds[Vgs], Rds(on)Id[Vgs], Rds(on)Temp[Vgs], VthTemp[Id], Ciss, Coss, Crss, IsVsd[Temp], VgsQg[Vdd], tdon, tdoff, tf, tr

Simulation Range

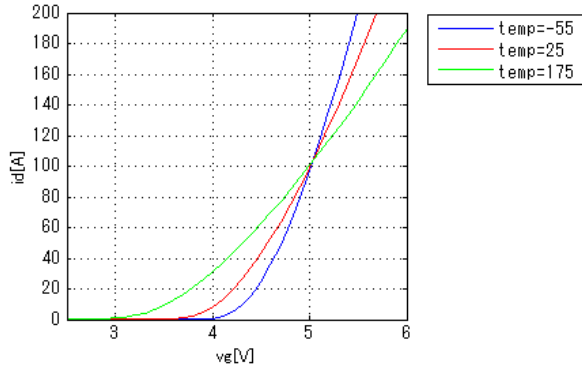
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	40	V
Gate-source voltage (DC)	0	to	20	V
Temperature	-55	to	175	deg C

Simulation results are following.
 Explanatory notes — : simulated

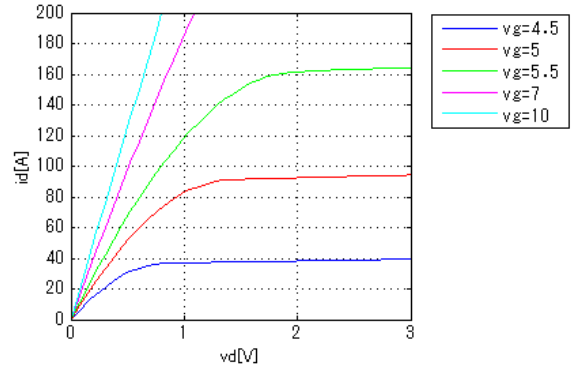
IdVgs[Temp]

Vds = 6V

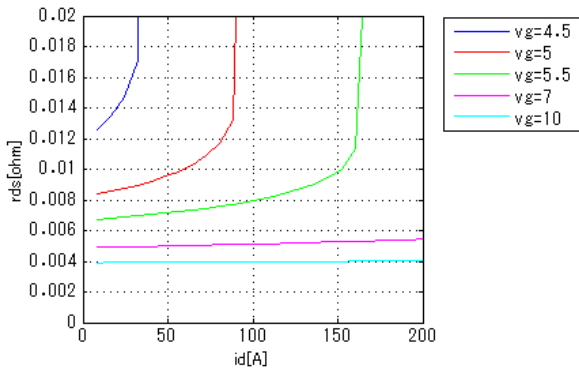


IdVds[Vgs]

Temp. = 25deg C

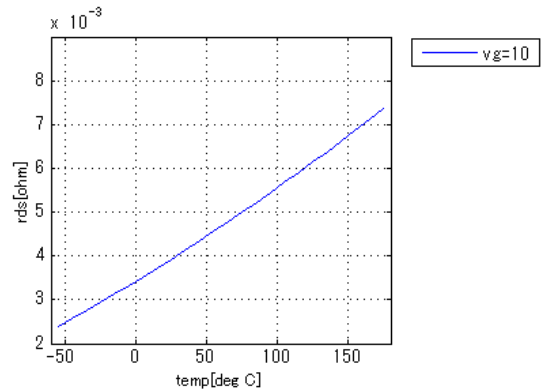


Rds(on)Id[Vgs]



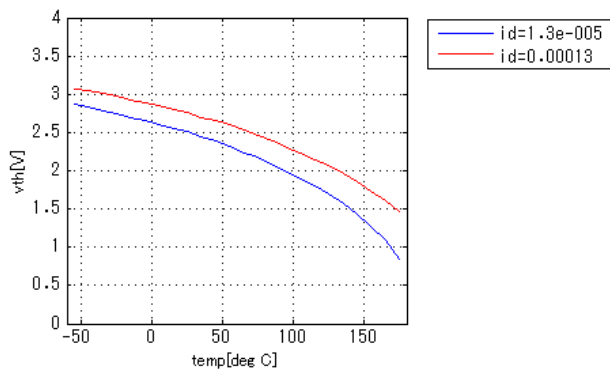
Rds(on)Temp[Vgs]

Id = 30A



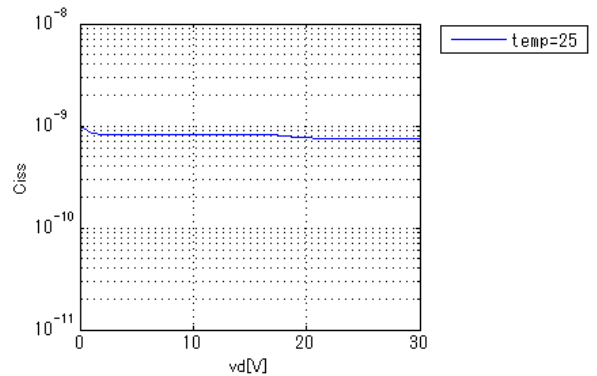
VthTemp[Id]

Vd = Vg



Ciss

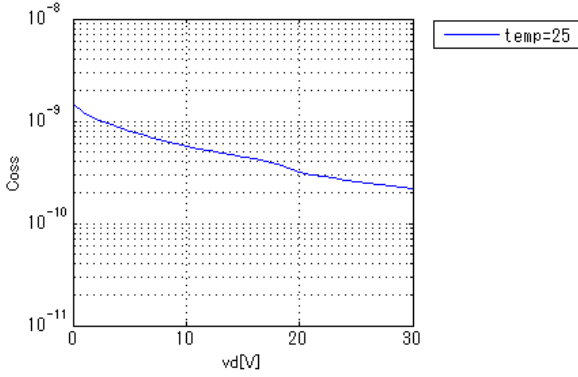
Freq. = 1MHz



Simulation results are following.
 Explanatory notes — : simulated

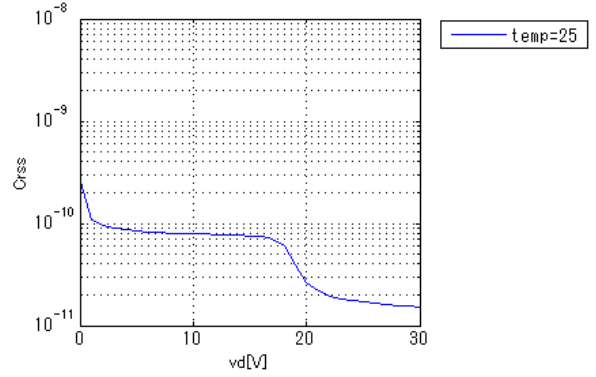
Coss

Freq. = 1MHz

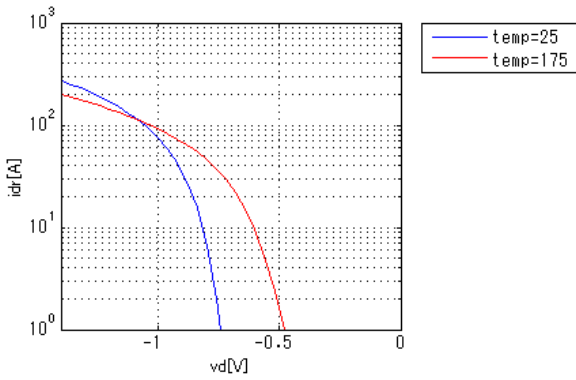


Crss

Freq. = 1MHz

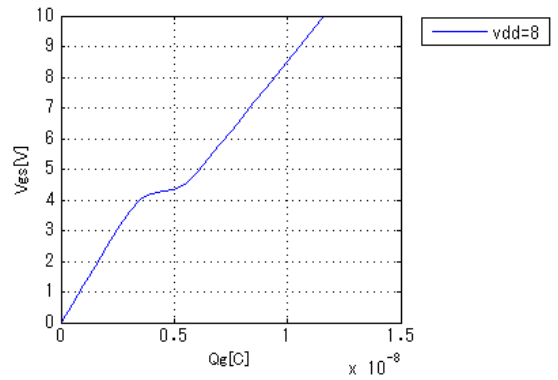


IsVsd[Temp]



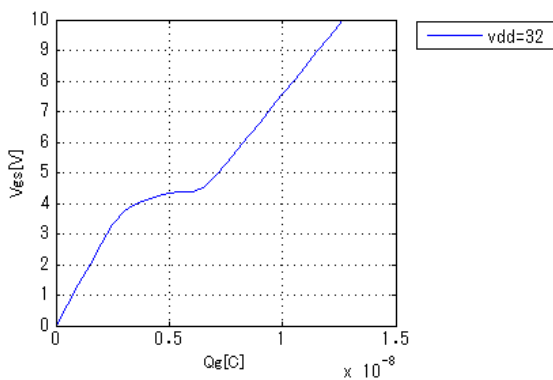
VgsQg[Vdd]

Id = 30A



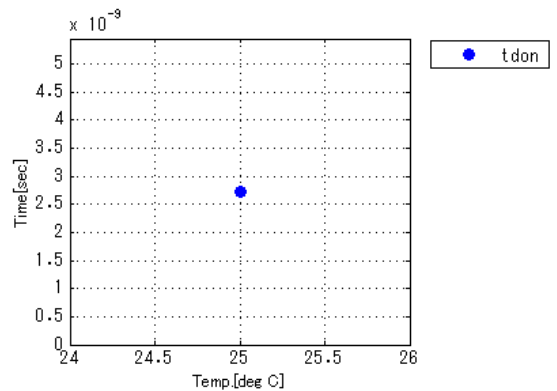
VgsQg[Vdd]

Id = 30A



tdon

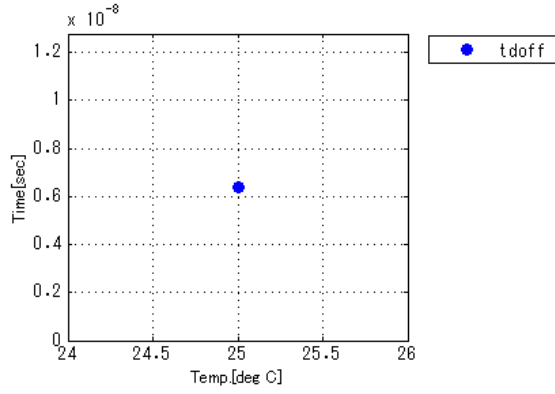
Vdd = 20V, Id = 60A, +Vg = 10V, -Vg = 0V, Rg = 3.5ohm



Simulation results are following.
 Explanatory notes — : simulated

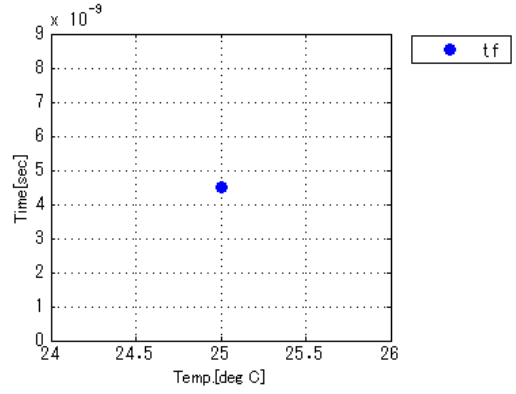
tdoff

Vdd = 20V, Id = 60A, +Vg = 10V, -Vg = 0V, Rg = 3.5ohm



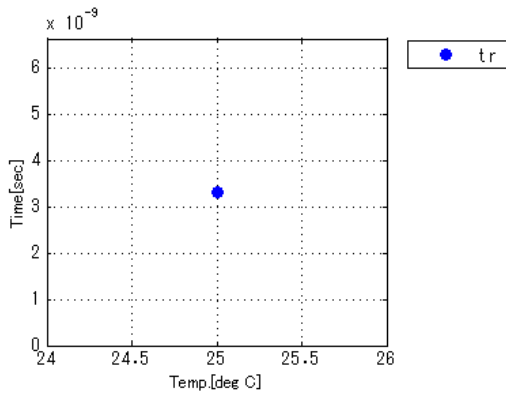
tf

Vdd = 20V, Id = 60A, +Vg = 10V, -Vg = 0V, Rg = 3.5ohm



tr

Vdd = 20V, Id = 60A, +Vg = 10V, -Vg = 0V, Rg = 3.5ohm



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