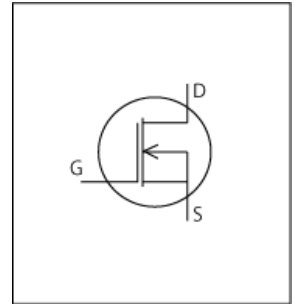


PSpice Model

NMOS

TOSHIBA

SSM3K37MFV



Model Information

Model A macro model based on BSIM3
Call Name MDC_SSM3K37MFV_PS
Pin Assign 1:D 2:G 3:S
File List Model Library MDC_SSM3K37MFV_PS01.lib
 Model Report MDC_SSM3K37MFV_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 2014-03-01
- Product name SSM3K37MFV
- Company name Toshiba Corporation
- Characteristics IdVds[Vgs], IdVgs[Temp], Rds(on)Vgs[Temp], Rds(on)Id[Vgs], Rds(on)Temp[Vgs], VthTemp[Id], IsVsd[Temp], Ciss, Coss, Crs s

Simulation Range

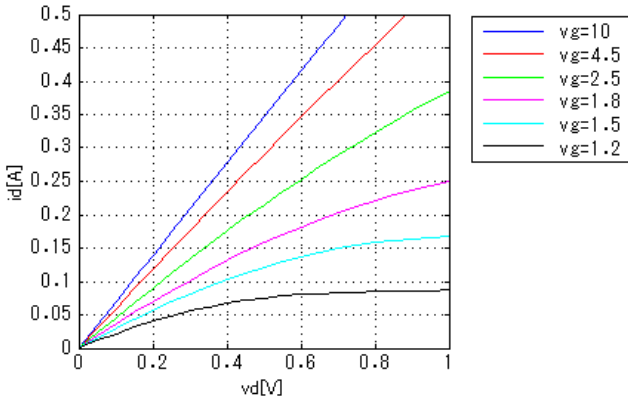
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	20	V
Gate-source voltage (DC)	0	to	10	V
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

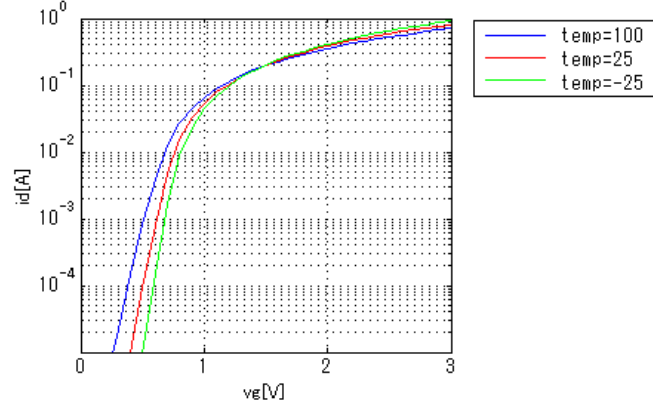
IdVds[Vgs]

Temp. = 25deg C



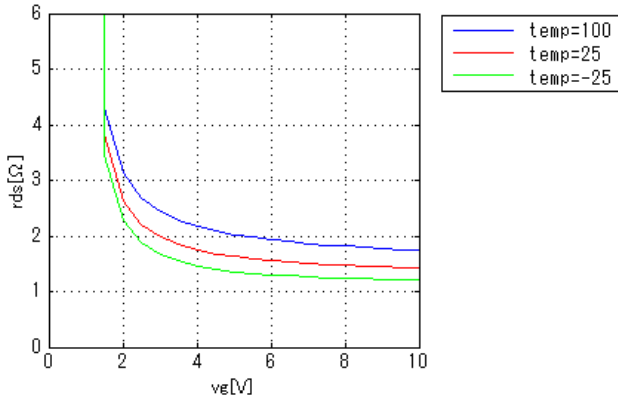
IdVgs[Temp]

$V_{ds} = 3V$

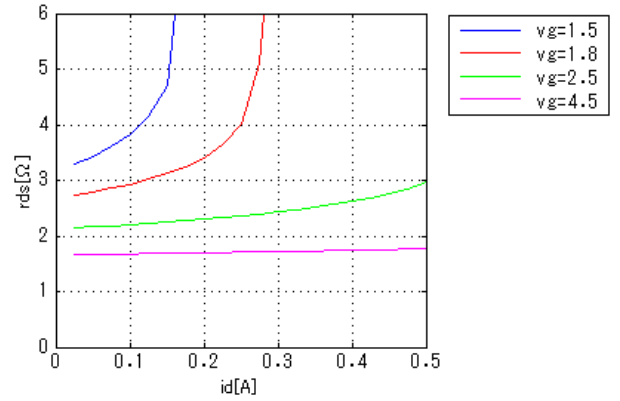


Rds(on)Vgs[Temp]

$I_d = 0.1A$

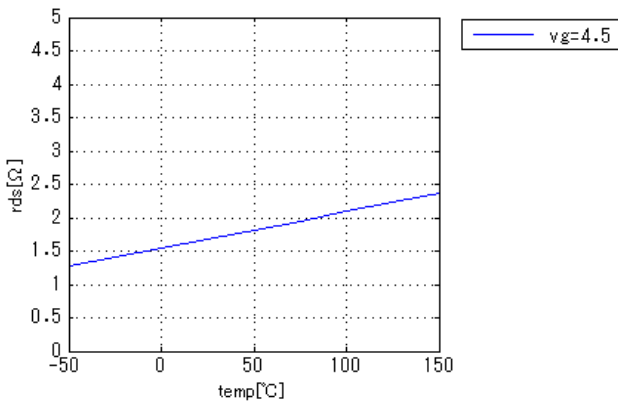


Rds(on)Id[Vgs]



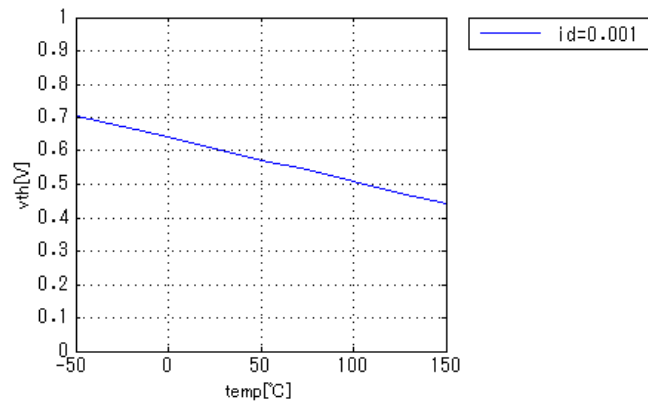
Rds(on)Temp[Vgs]

$I_d = 0.1A$



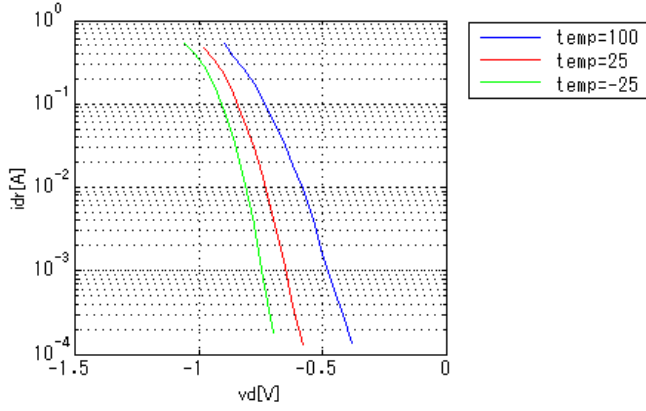
VthTemp[Id]

$V_{ds} = 3V$



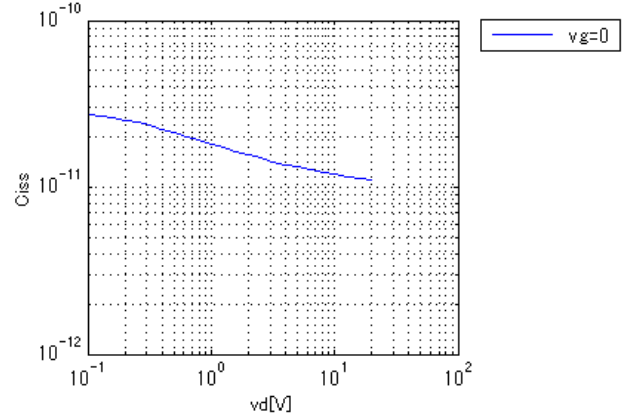
Simulation results are following.
 Explanatory notes — : simulated

IsVsd[Temp]



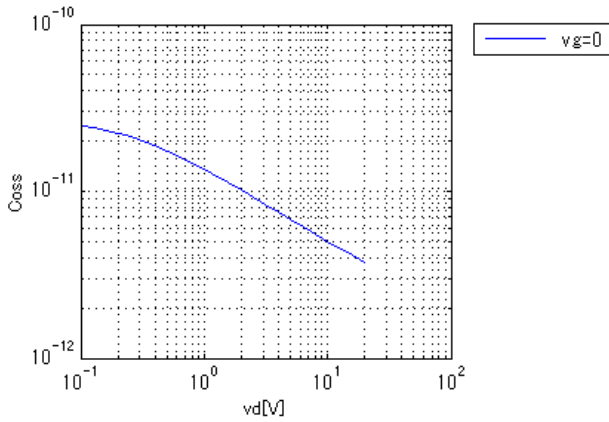
Ciss

Freq. = 1MHz



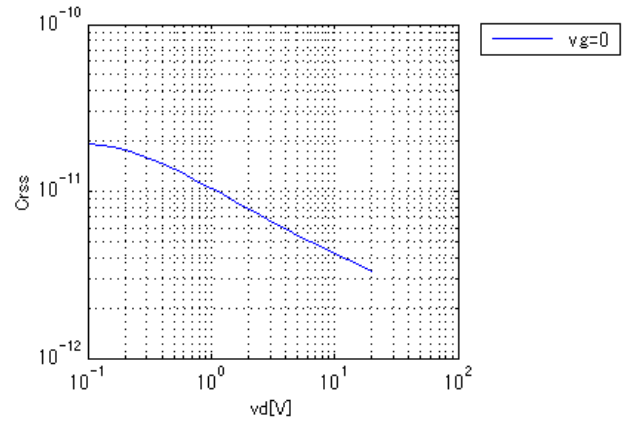
Coss

Freq. = 1MHz



Crss

Freq. = 1MHz



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