

PSpice Model

NMOS

TOSHIBA

SSM3K2615R



Model Information

Model A macro model based on BSIM3
Call Name MDC_SSM3K2615R_PS
Pin Assign 1:D 2:G 3:S
File List Model Library MDC_SSM3K2615R_PS01.lib
 Model Report MDC_SSM3K2615R_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 2015-01-30 Rev 2.0
- Product name SSM3K2615R
- Company name Toshiba Corporation
- Characteristics IdVds[Vgs], IdVgs[Temp], Rds(on)Vgs[Temp], Rds(on)Id[Vgs], Rds(on)Temp[Id], VthTemp[Id], IsVsd[Temp], Ciss, Coss, Crss, VgsQg[Vdd]

Simulation Range

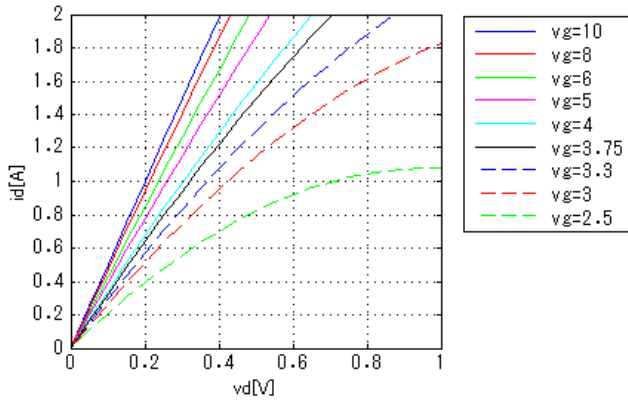
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	60	V
Gate-source voltage (DC)	0	to	20	V
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

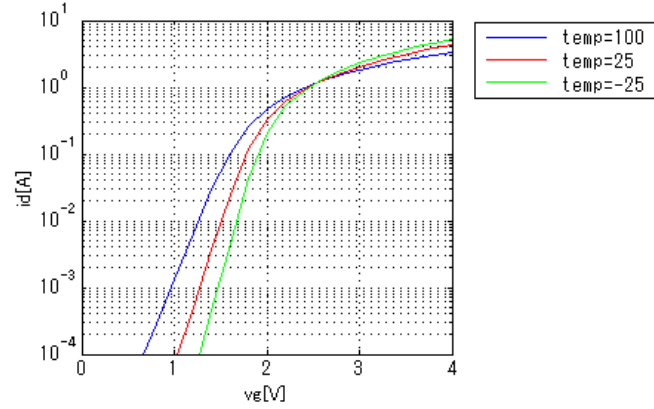
IdVds[Vgs]

Temp. = 25deg C



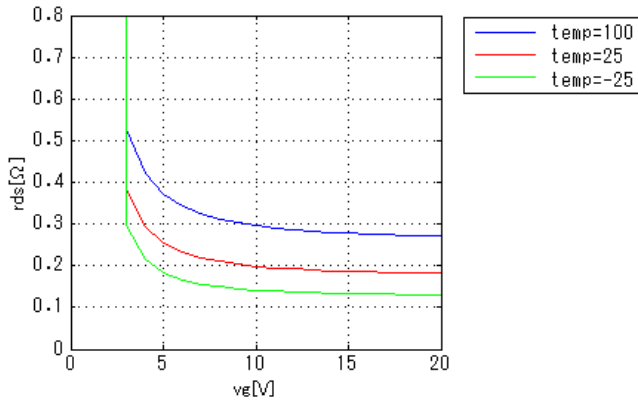
IdVgs[Temp]

Vds = 10V

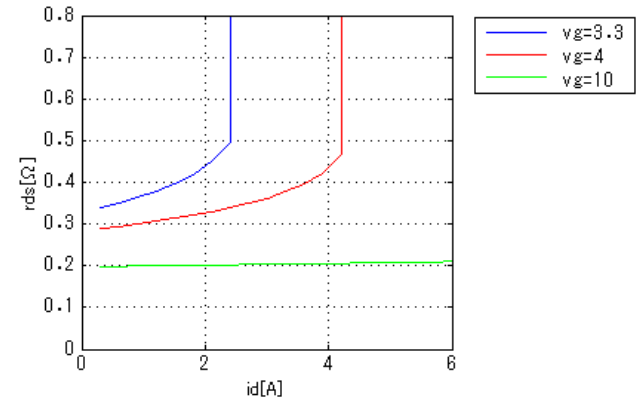


Rds(on)Vgs[Temp]

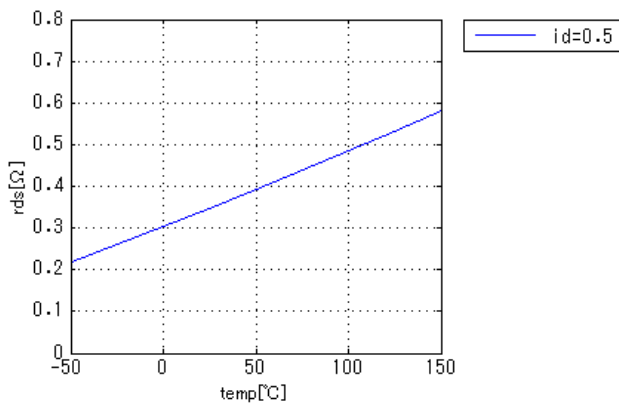
Id = 0.5A



Rds(on)Id[Vgs]

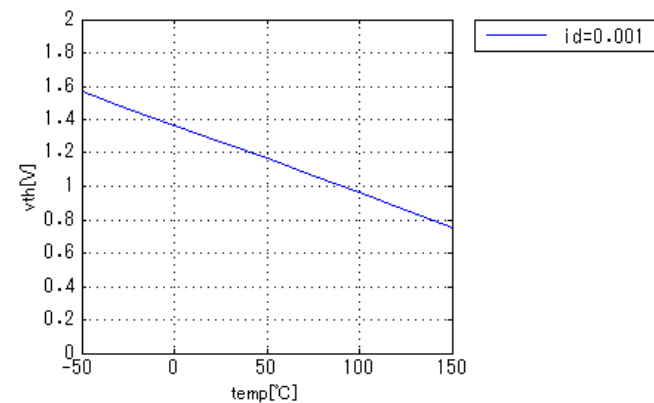


Rds(on)Temp[Id]



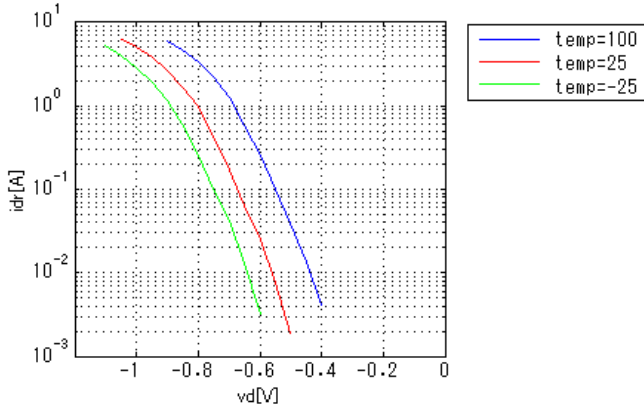
VthTemp[Id]

Vds = 10V



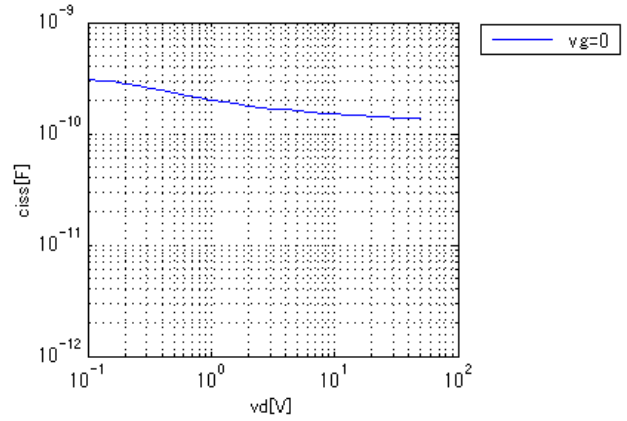
Simulation results are following.
 Explanatory notes — : simulated

IsVsd[Temp]



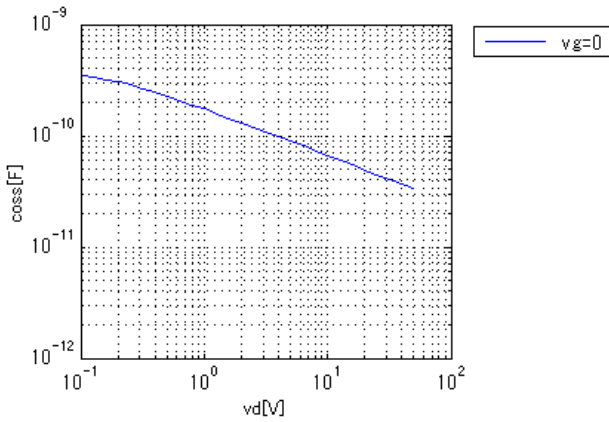
Ciss

Freq. = 1MHz



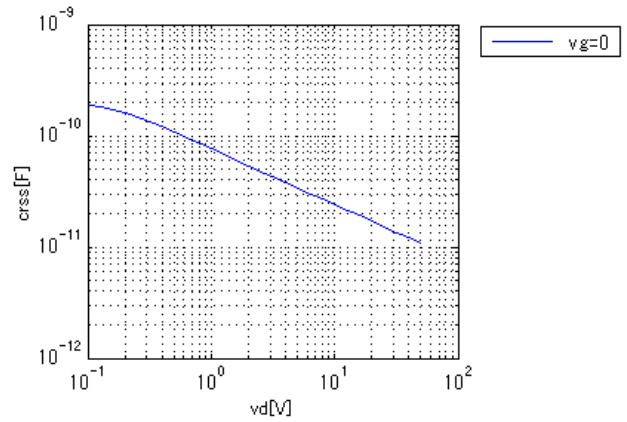
Coss

Freq. = 1MHz



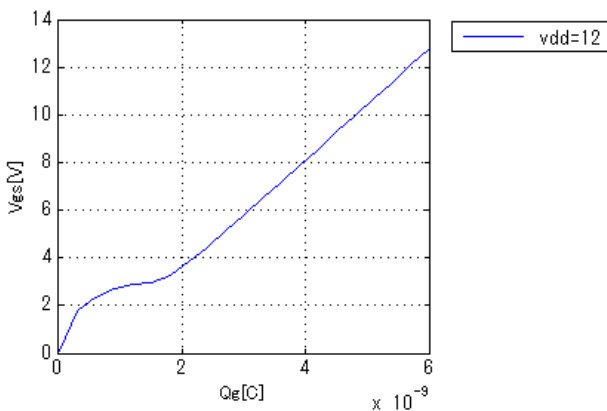
Crss

Freq. = 1MHz



VgsQg[Vdd]

Id = 2A



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