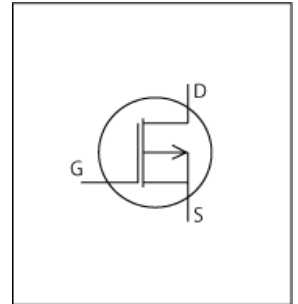


PSpice Model

PMOS

TOSHIBA

SSM6J414TU



Model Information

Model A macro model based on BSIM3 model
Call Name MDC_SSM6J414TU_PS
Pin Assign 1:D 2:D 3:G 4:S 5:D 6:D
File List Model Library MDC_SSM6J414TU_PS01.lib
 Model Report MDC_SSM6J414TU_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 2014-04-04 Rev.3.0
- Product name SSM6J414TU
- Company name Toshiba Corporation
- Characteristics IdVds[Vgs], IdVgs[Temp], Rds(on)Vgs[Temp], Rds(on)Id[Vgs], VthTemp[Id], IsVsd[Temp], Rds(on)Temp[Id/Vgs], Capacitance ,Switching, VgsQg[Vdd]

Simulation Range

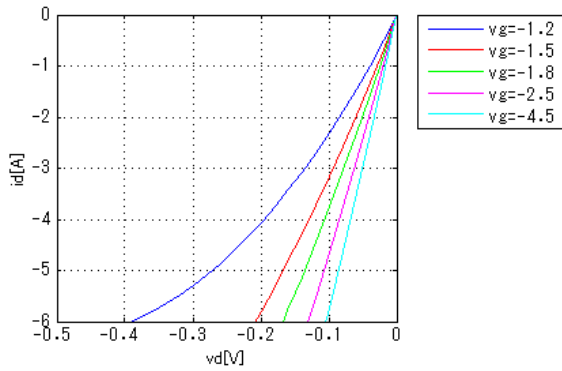
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	-20	V
Gate-source voltage (DC)	8	to	-8	V
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

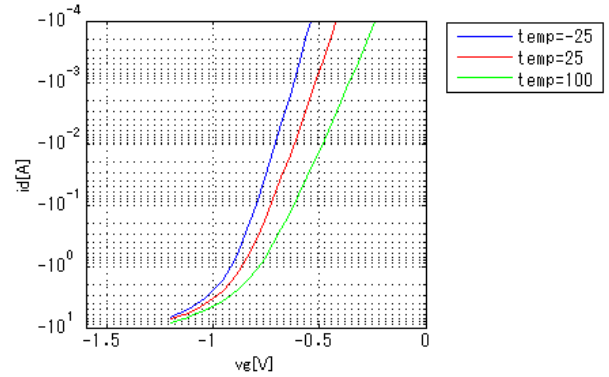
IdVds[Vgs]

Temp. = 25deg C



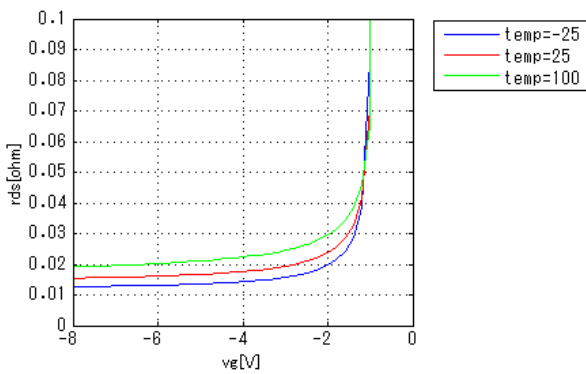
IdVgs[Temp]

$V_{ds} = -3V$

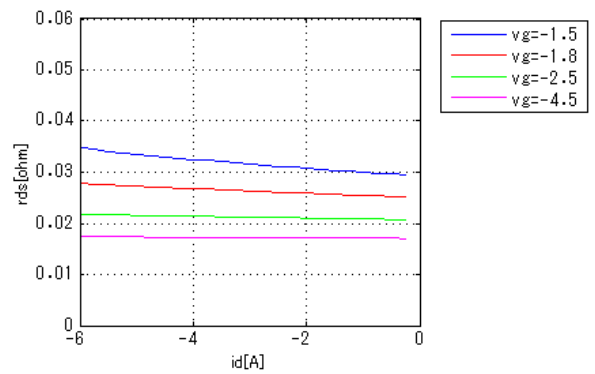


Rds(on)Vgs[Temp]

$I_d = -1.5A$

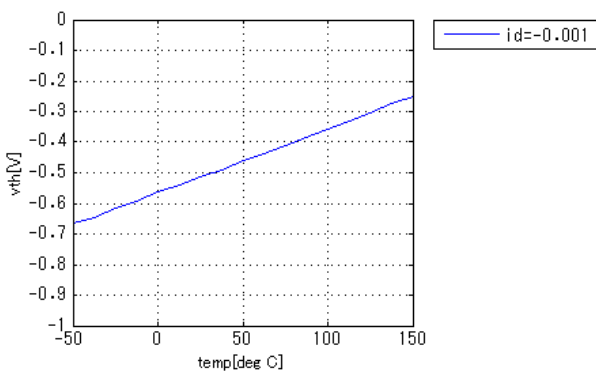


Rds(on)Id[Vgs]

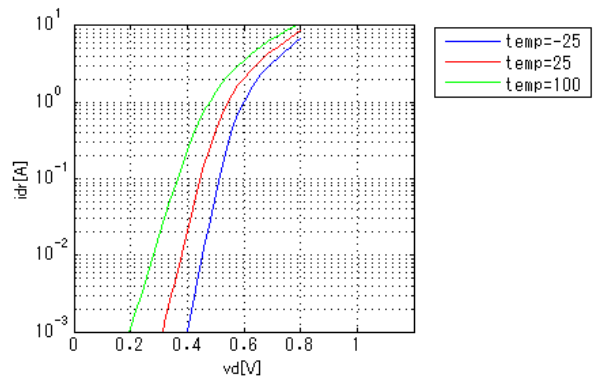


VthTemp[Id]

$V_{ds} = -3V$

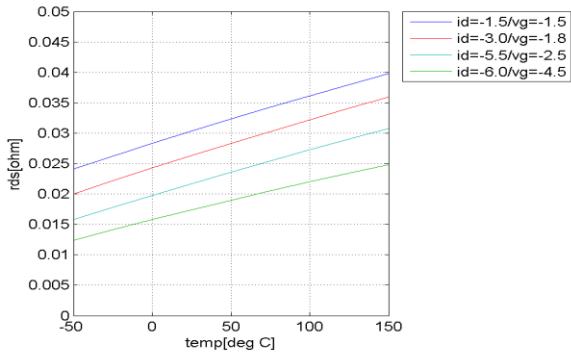


IsVsd[Temp]



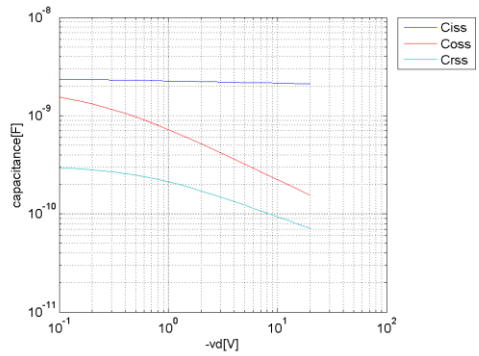
Simulation results are following.
 Explanatory notes — : simulated

Rds(on)Temp[Id/Vgs]



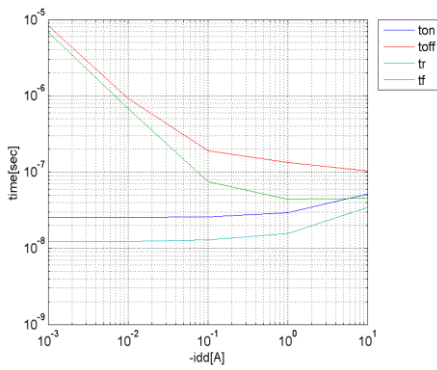
Capacitance

Freq. = 1MHz



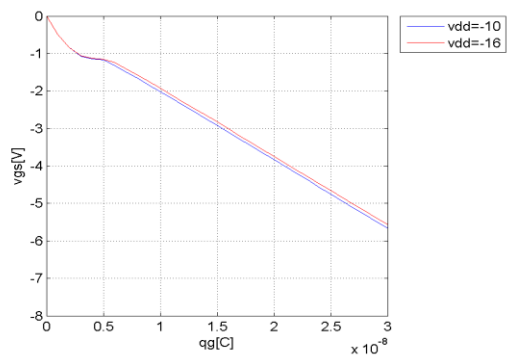
Switching

Vdd = -10V,+Vg 0V,-Vg = -2.5V,Rgs = 4.7ohm



VgsQg[Vdd]

Id = -6A



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