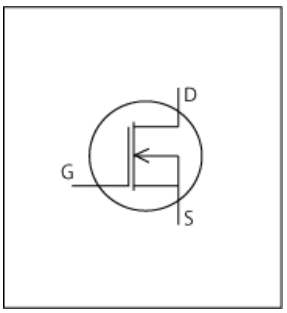
LTspice Model
NMOS
Isahaya
INJ0312AC1



Model Information

Model	A macro model based on BSIM3 model	
Call Name	MDC_INJ0312AC1_LT	
Pin Assign	1:G 2:S 3:D	
File List	Model Library	MDC_INJ0312AC1_LT01.lib
	Model Report	MDC_INJ0312AC1_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: Aug.2015
- ●Product name: INJ0312AC1
- ●Company name: Isahaya Electronics Corporation
- ●Characteristics: IdVds[Vgs],IsVsd[Temp],IdVgs[Temp],VthTemp[Id],Rds(on)Id[Temp],Rds(on)Vgs[Temp],Rds(on)Temp[Vgs],Ciss,Coss,Crss,ton,toff

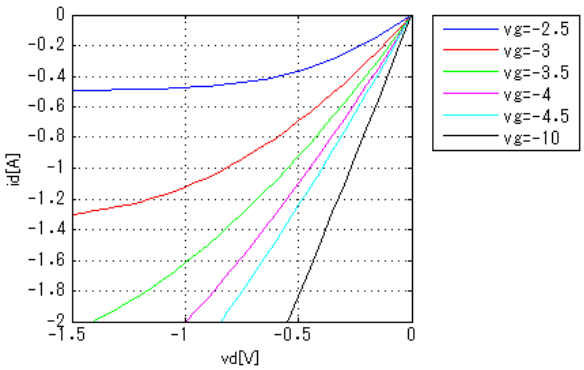
Simulation Range

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

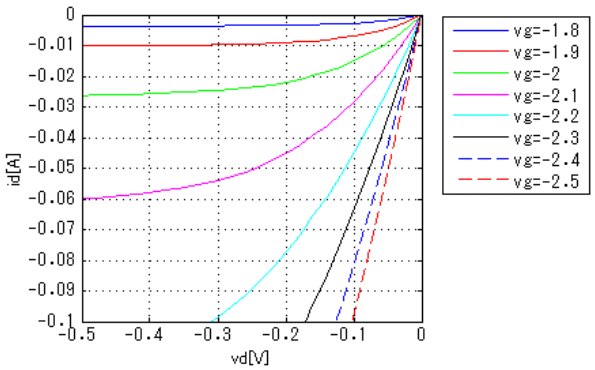
Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	-50	V
Gate-source voltage (DC)	0	to	20	V
Temperature	-55	to	150	deg C

Simulation results are following.
Explanatory notes — : simulated

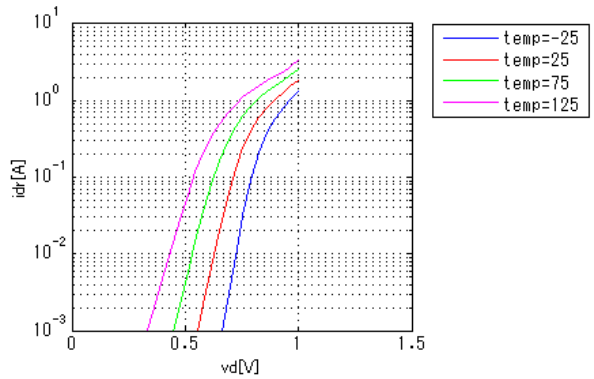
IdVds[Vgs]
Temp. = 25deg C



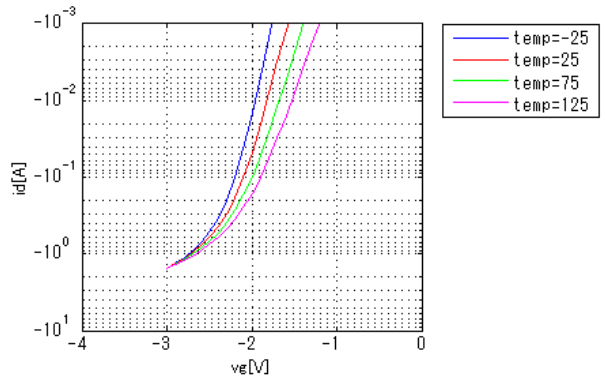
IdVds[Vgs]
Temp. = 25deg C



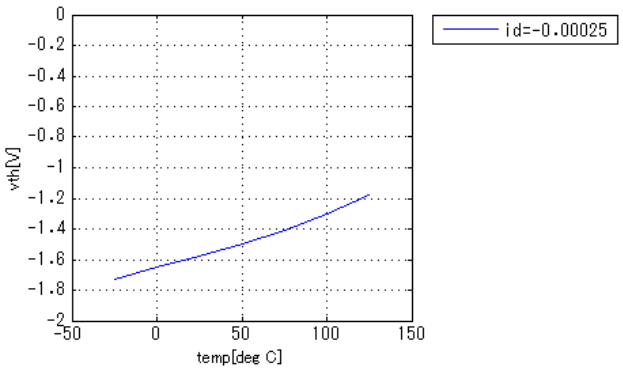
IsVsd[Temp]



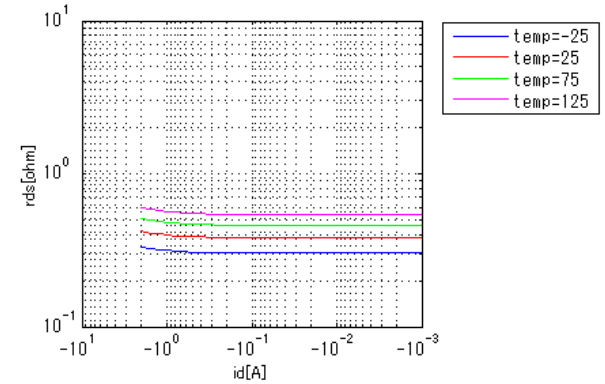
IdVgs[Temp]
Vds = -10V



VthTemp[Id]
Vd = Vg



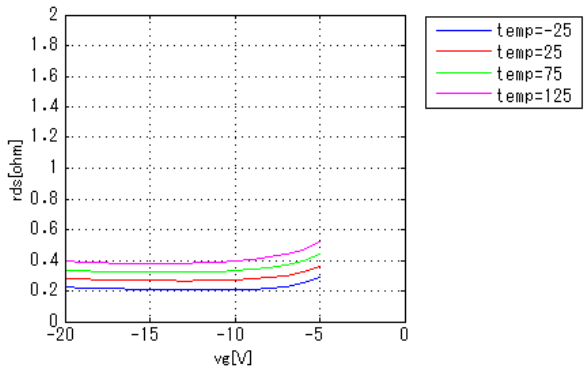
Rds(on)Id[Temp]
Vgs = -4.5V



Simulation results are following.
Explanatory notes — : simulated

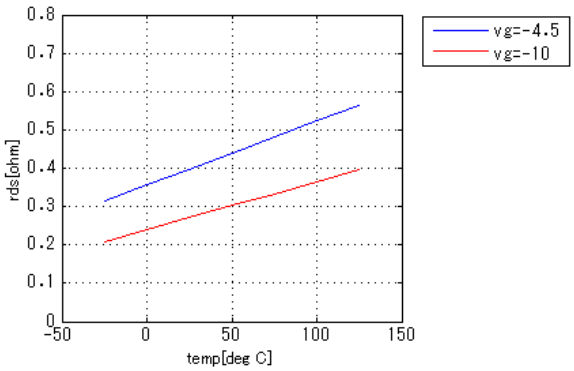
Rds(on)Vgs[Temp]

Id = -1A



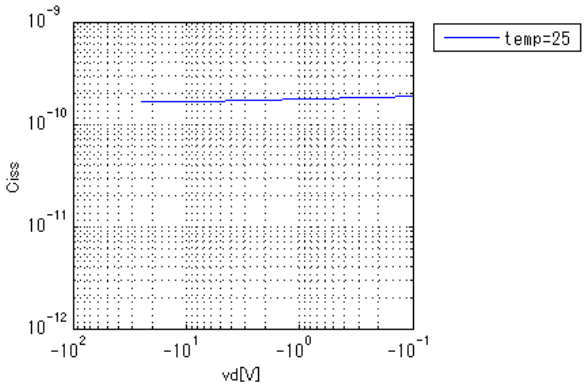
Rds(on)Temp[Vgs]

Id = -1A



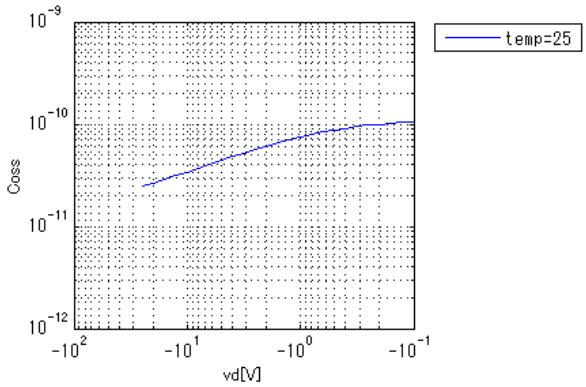
Ciss

Freq. = 1MHz



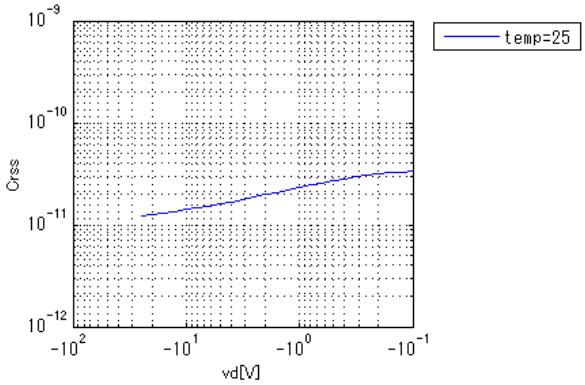
Coss

Freq. = 1MHz



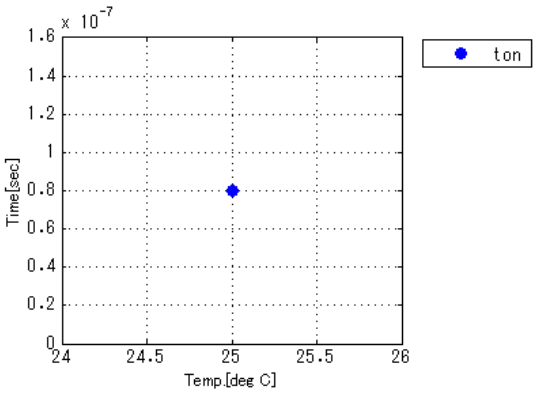
Crss

Freq. = 1MHz



ton

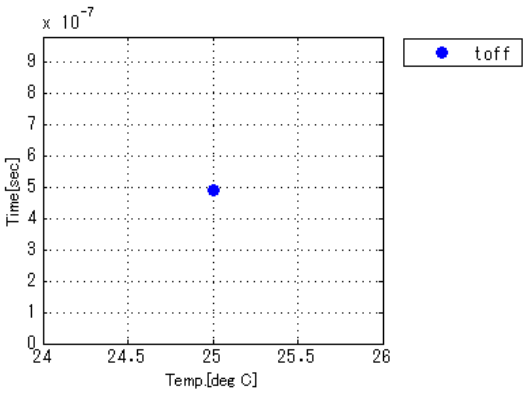
Vdd = -15V, Id = -1A, +Vg = -10V, -Vg = 0V, Rg = 0.001ohm



Simulation results are following.
Explanatory notes　— : simulated

toff

Vdd = -15V, Id = -1A, +Vg = -10V, -Vg = 0V, Rg = 0.001ohm



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