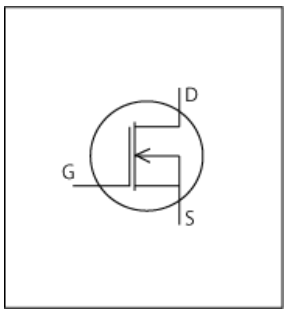
LTspice Model
NMOS
SanKen
FKI06190



Model Information

Model	A macro model based on BSIM3 model	
Call Name	MDC_FKI06190_LT	
Pin Assign	1:G 2:D 3:S	
File List	Model Library	MDC_FKI06190_LT01.lib
	Model Report	MDC_FKI06190_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: Rev.1.3
- ●Product name: FKI06190
- ●Company name: Sanken Electric Co., Ltd.
- ●Characteristics: Rds(on)Id[Temp],IdVgs[Temp],VdsVgs[Id],IsVsd[Vgs],IsVsd[Temp],Crss,Coss,Ciss,VgsQg[Vdd],VthTemp[Id],Rds(on)Temp[Id],tdon,tdoff,tf,tr

Simulation Range

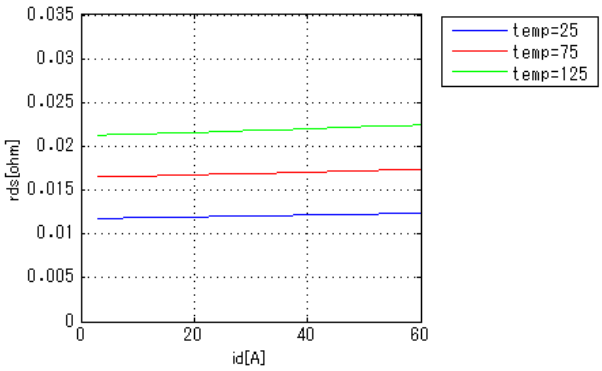
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

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

Simulation results are following.
Explanatory notes — : simulated

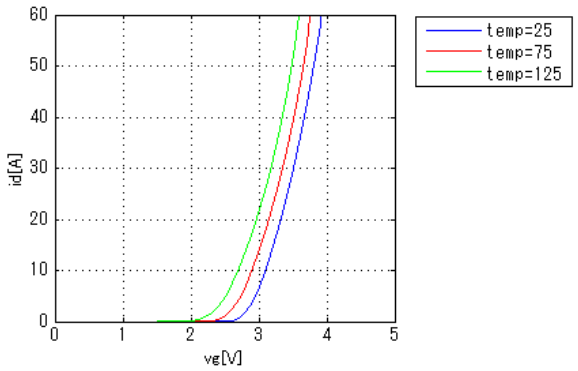
Rds(on)Id[Temp]

Vgs = 10V

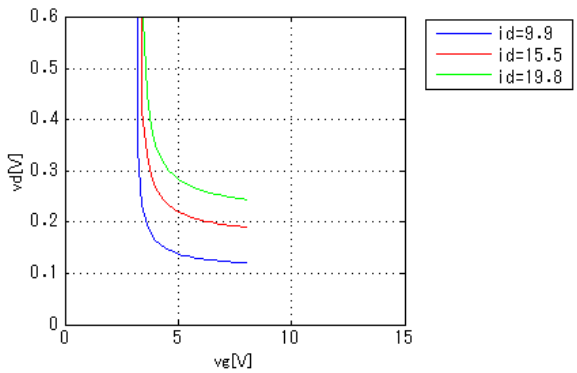


IdVgs[Temp]

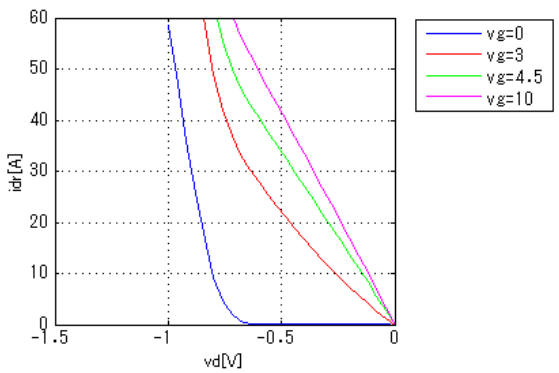
Vds = 5V



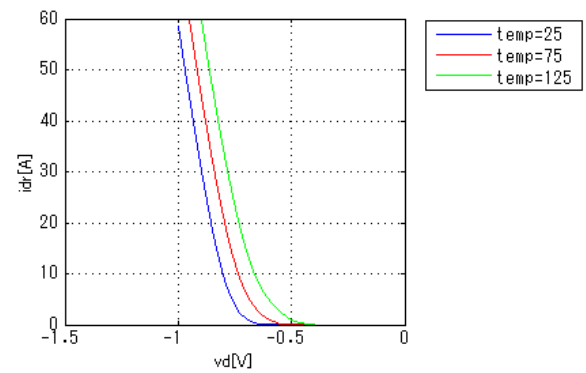
VdsVgs[Id]



IsVsd[Vgs]

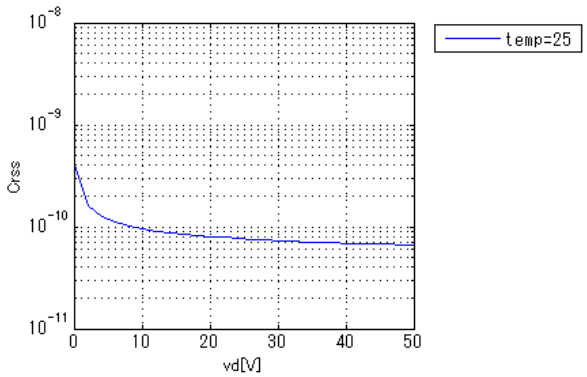


IsVsd[Temp]



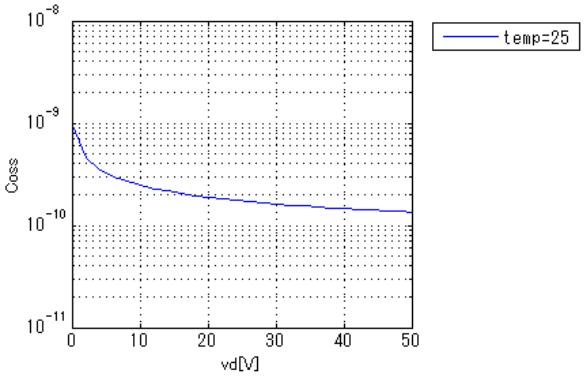
Crss

Freq. = 1MHz

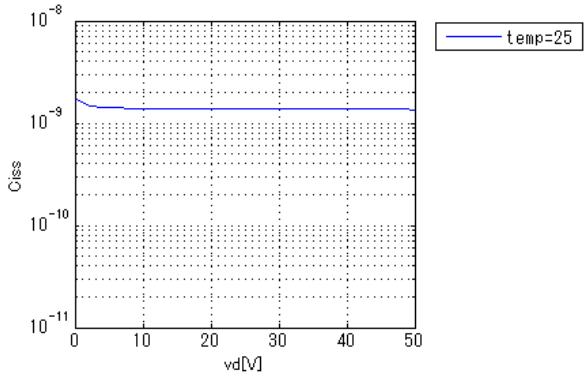


Simulation results are following.
Explanatory notes — : simulated

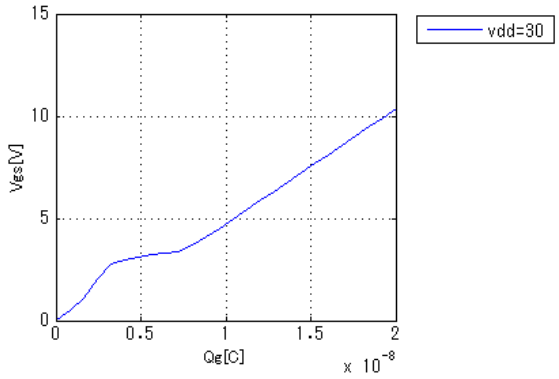
Coss
Freq. = 1MHz



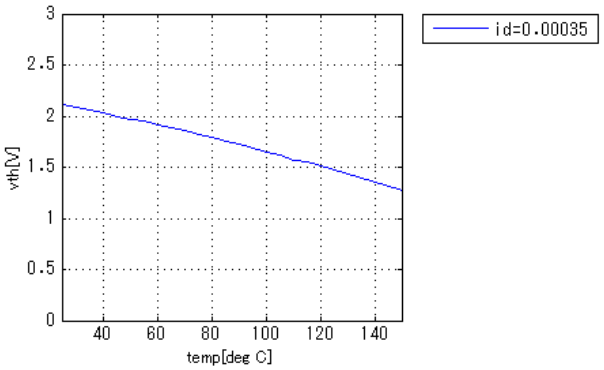
Ciss
Freq. = 1MHz



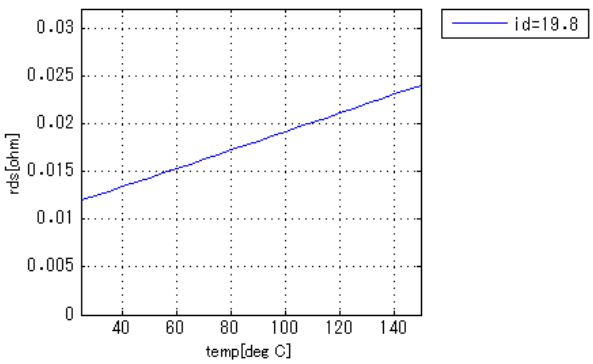
VgsQg[Vdd]
Id = 19.8A



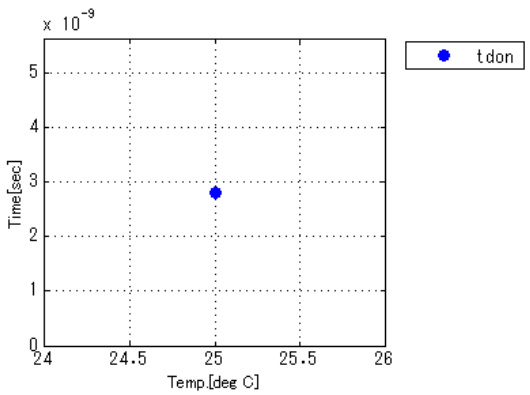
VthTemp[Id]
Vd = Vg



Rds(on)Temp[Id]
Vgs = 10V



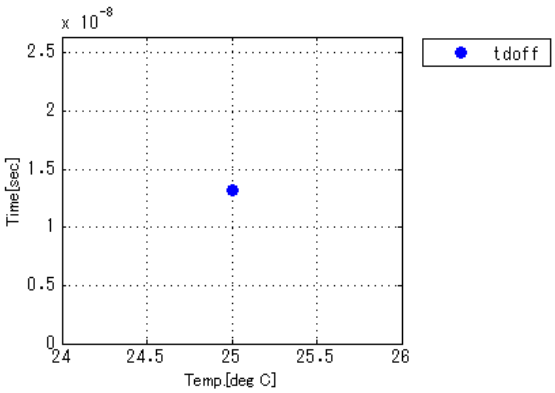
tdon
Vdd = 30V, Id = 19.8A, +Vg = 10V, -Vg = 0V, Rg = 0.001ohm



Simulation results are following.
Explanatory notes — : simulated

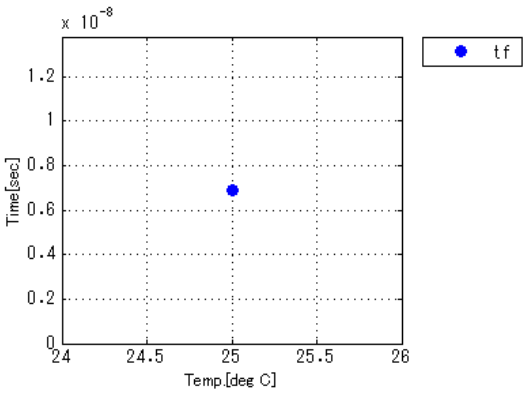
tdoff

Vdd = 30V, Id = 19.8A, +Vg = 10V, -Vg = 0V, Rg = 0.001ohm



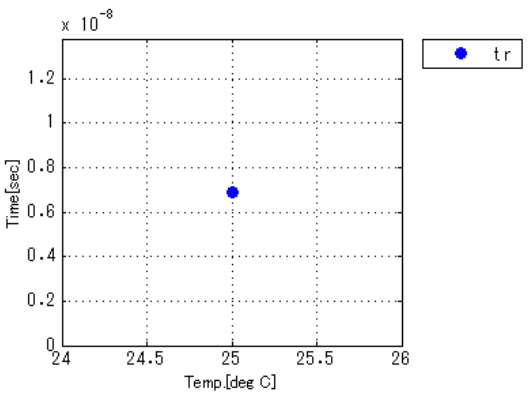
tf

Vdd = 30V, Id = 19.8A, +Vg = 10V, -Vg = 0V, Rg = 0.001ohm



tr

Vdd = 30V, Id = 19.8A, +Vg = 10V, -Vg = 0V, Rg = 0.001ohm



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