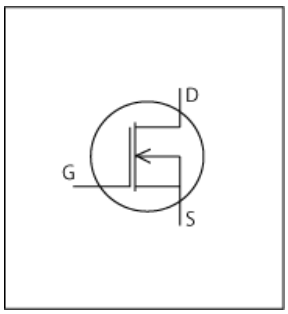
LTspice Model
NMOS
STM
STF26NM60N



Model Information

Model	A macro model based on BSIM3 model	
Call Name	MDC_STF26NM60N_LT	
Pin Assign	1:G 2:D 3:S	
File List	Model Library	MDC_STF26NM60N_LT01.lib
	Model Report	MDC_STF26NM60N_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: June 2012
- ●Product name: STF26NM60N
- ●Company name: STMicroelectronics N.V.
- ●Characteristics: IdVds[Vgs],IdVgs[Temp],YfsId[Temp],Rds(on)Id[Vgs],VgsQg[Vdd],CapacitanceVds[Cname],VthTemp[Id],Rds(on)Temp[Vgs],VsdIs[Temp],BvTemp[ir],SwitchingIdd[Tname],TrrIf[Ir],TrrIf[Ir]02,QrrIf[Ir],QrrIf[Ir]02,SwitchingWaveform,TrrQrrWaveform(25degC),TrrQrrWaveform(150degC)

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	600	V
Gate-source voltage (DC)	-25	to	25	V
Temperature	-55	to	150	deg C

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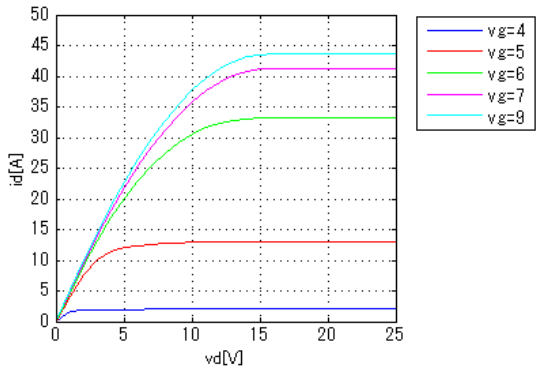
Simulation results are following.
Explanatory notes — : simulated

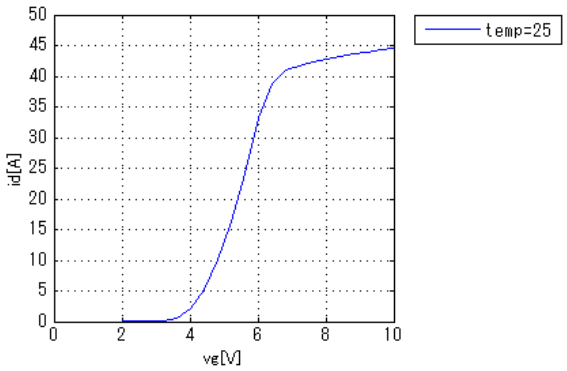
IdVds[Vgs]

Temp. = 25degC

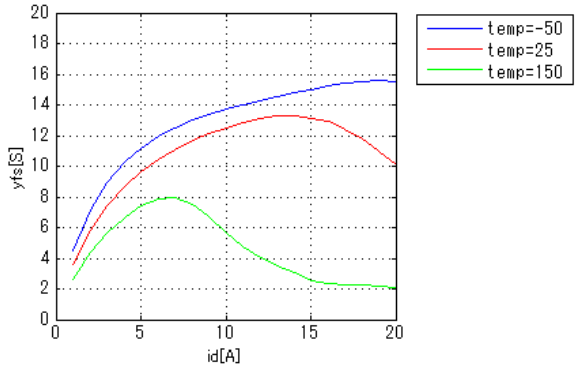


IdVgs[Temp]

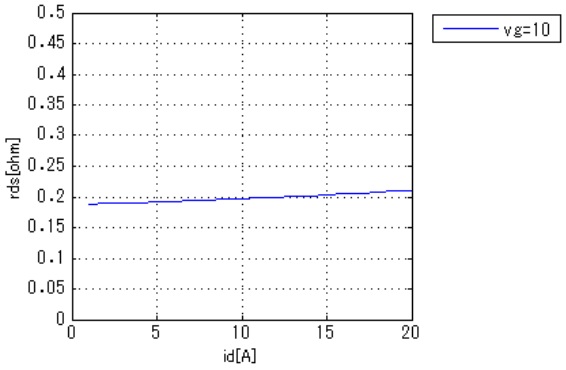
Vds = 25V



YfsId[Temp]

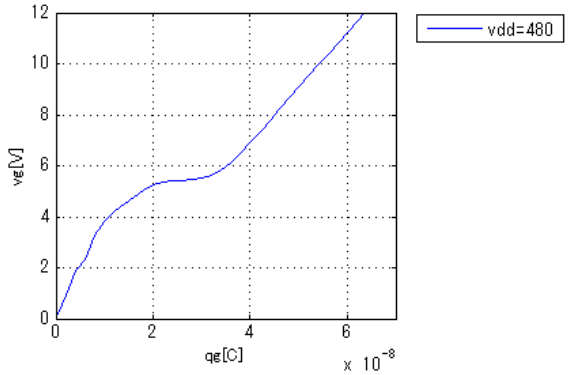


Rds(on)Id[Vgs]



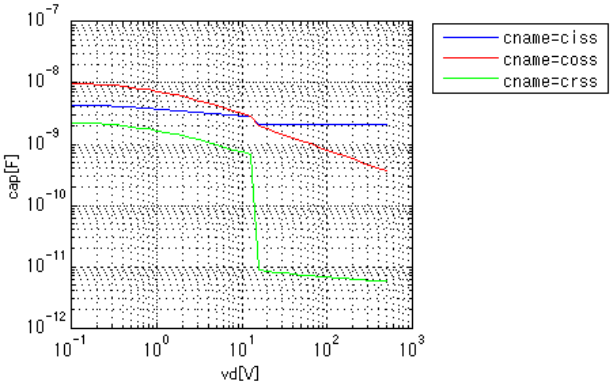
VgsQg[Vdd]

Id = A



CapacitanceVds[Cname]

freq = 1000000Hz



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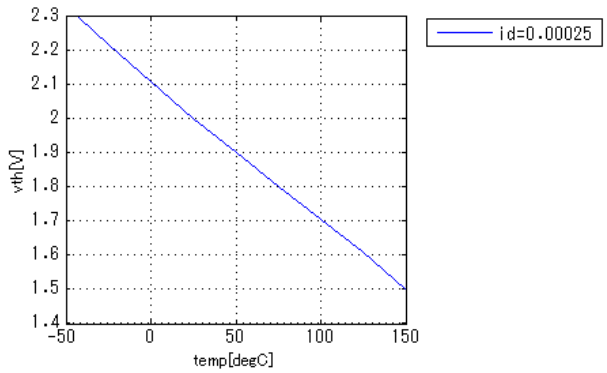
Simulation results are following.
Explanatory notes — : simulated

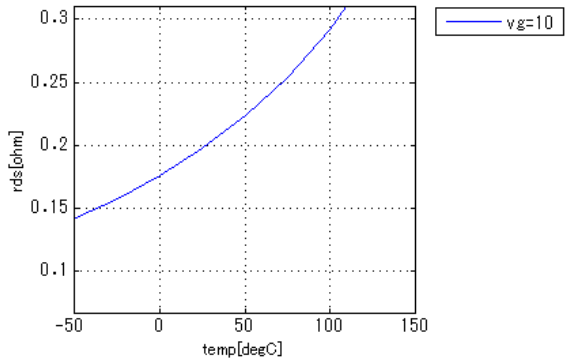
VthTemp[Id]

Vd = Vg



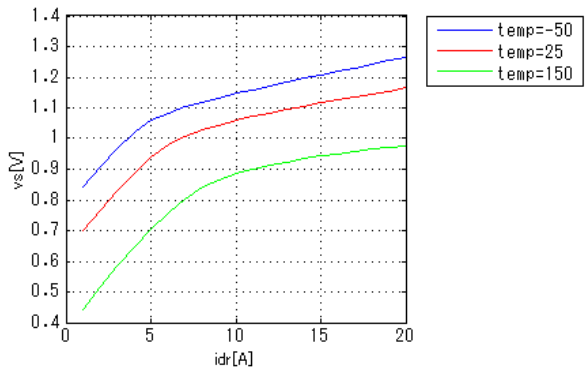
Rds(on)Temp[Vgs]

Id = 10A

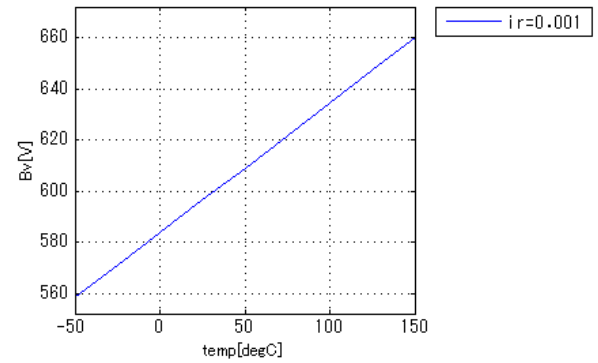


VsdIs[Temp]

vg = 0V

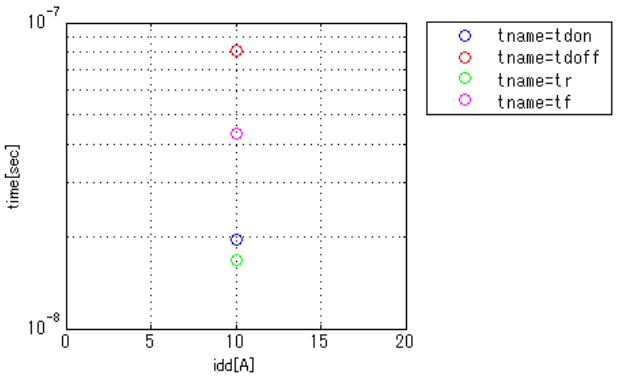


BvTemp[ir]



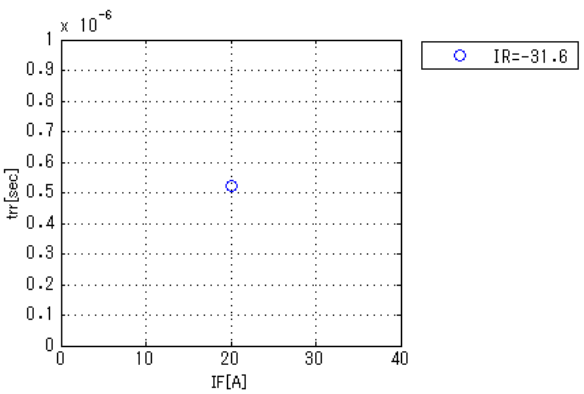
SwitchingIdd[Tname]

vgg = 10V, vdd = 300V, RGG = 4.7ohm



TrrIf[Ir]

vdd = 60V, didt = 100A/us, Temp = 25degC



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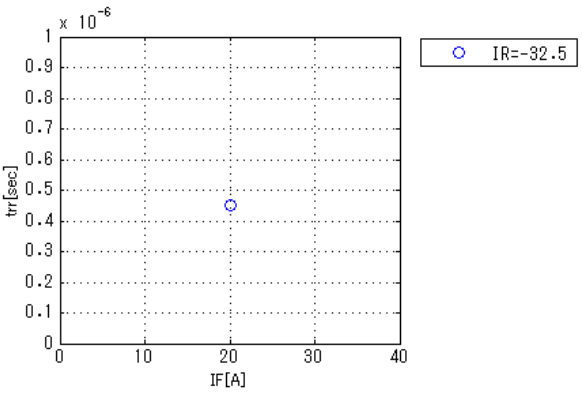
Simulation results are following.
Explanatory notes — : simulated

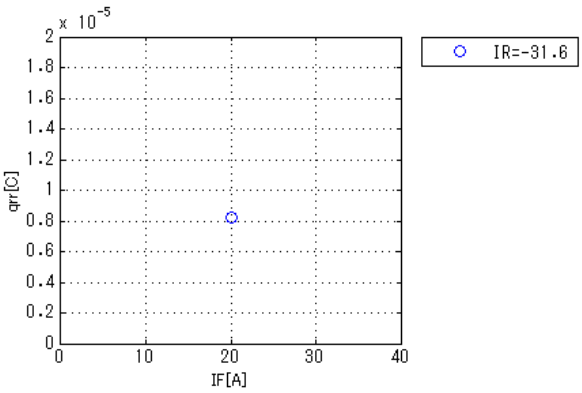
TrrIf[Ir]02

vdd = 60V, didt = 100A/us, Temp = 150degC



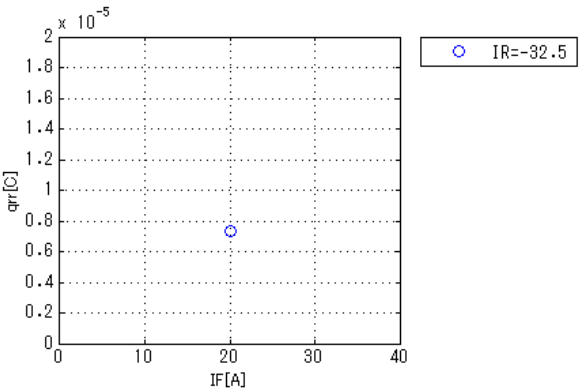
QrrIf[Ir]

vdd = 60V, didt = 100A/us, Temp = 25degC



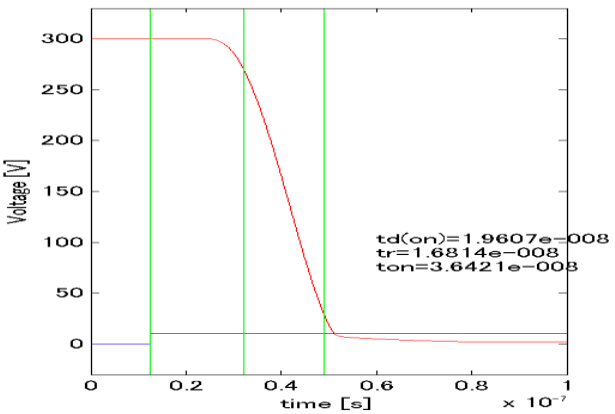
QrrIf[Ir]02

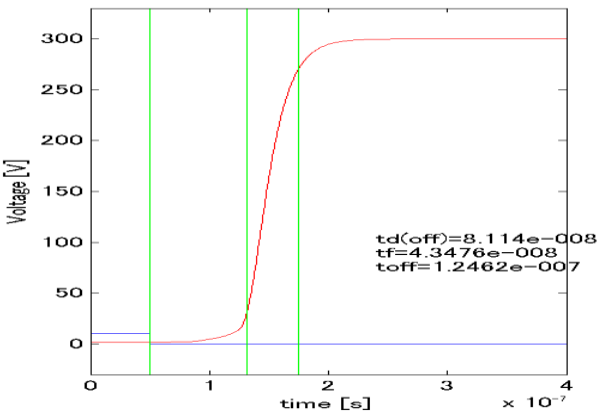
vdd = 60V, didt = 100A/us, Temp = 150degC



Switching Waveform

Blue : INPUT Red : OUTPUT





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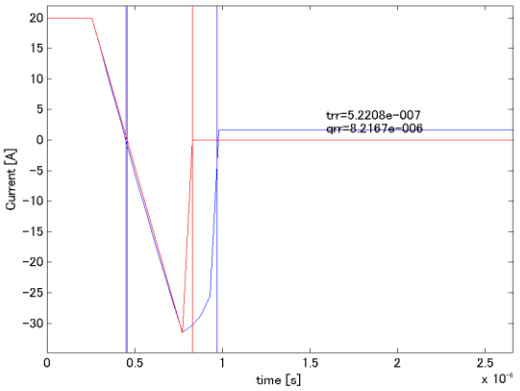
Simulation results are following.
Explanatory notes — : simulated

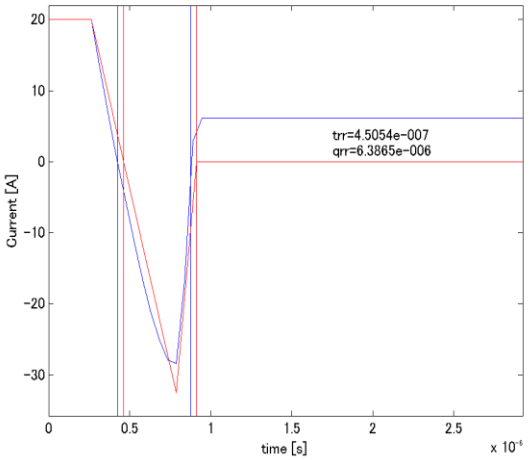
Trr Qrr Waveform (25degC)

Red : Datasheet Blue : Simulation



Trr Qrr Waveform (150degC)

Red : Datasheet Blue : Simulation



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Modeling Design Technology

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