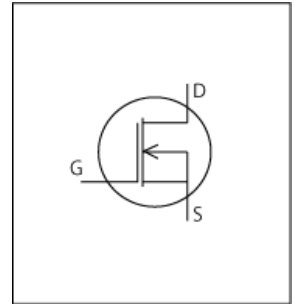


# PSpice Model

## NMOS

### TOSHIBA

### 2SK1830



### Model Information

**Model** A macro model based on BSIM3  
**Call Name** MDC\_2SK1830\_PS  
**Pin Assign** 1:D 2:G 3:S  
**File List** Model Library MDC\_2SK1830\_PS01.lib  
 Model Report MDC\_2SK1830\_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 2014-03-01
- Product name 2SK1830
- Company name Toshiba Corporation
- Characteristics IdVds[Vgs],IsVsd[Temp],IdVgs[Temp],Crss,Ciss,Coss

### Simulation Range

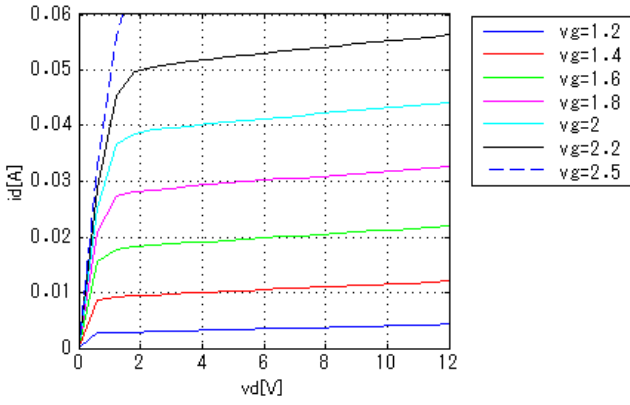
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	20	V
Gate-source voltage (DC)	0	to	10	V
Temperature	-55	to	150	deg C

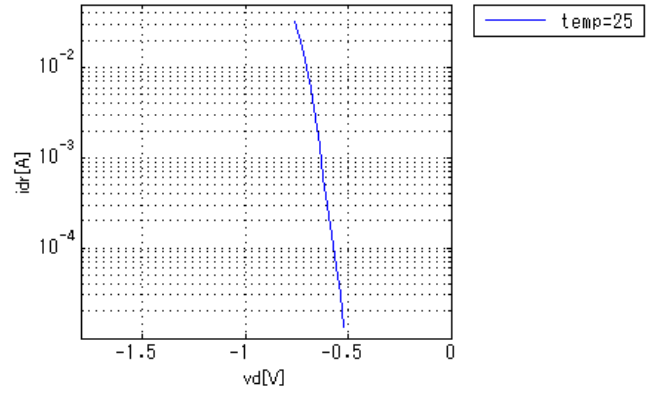
Simulation results are following.  
 Explanatory notes — : simulated

**IdVds[Vgs]**

Temp. = 25deg C

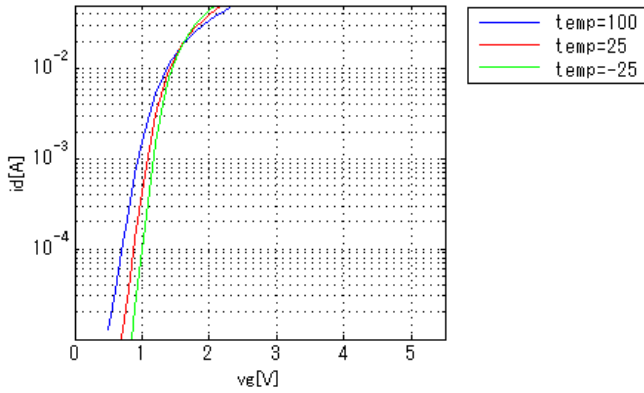


**IsVsd[Temp]**



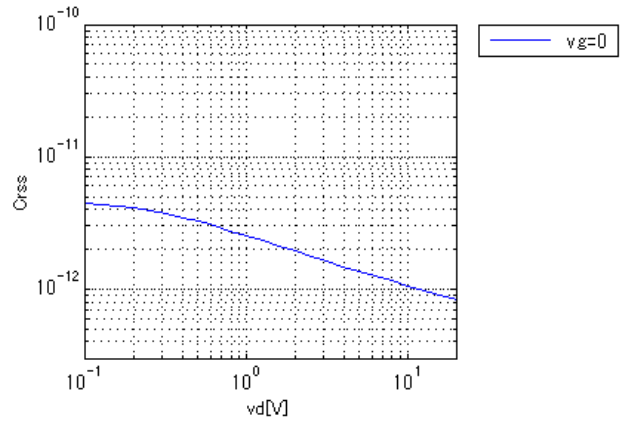
**IdVgs[Temp]**

Vds = 3V



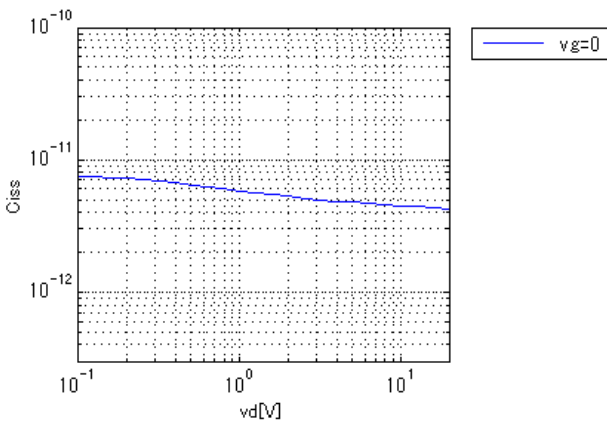
**Crss**

Freq. = 1MHz



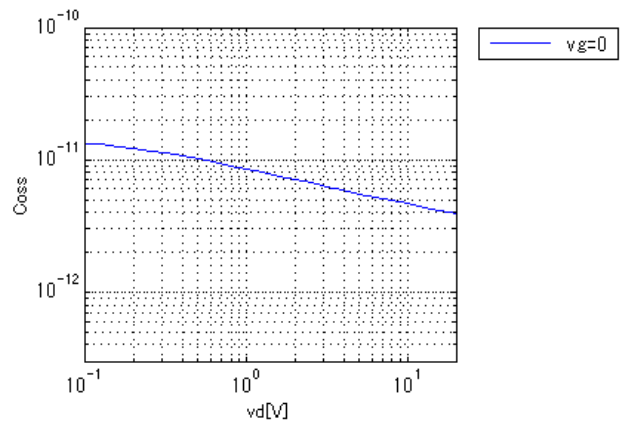
**Ciss**

Freq. = 1MHz



**Coss**

Freq. = 1MHz



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