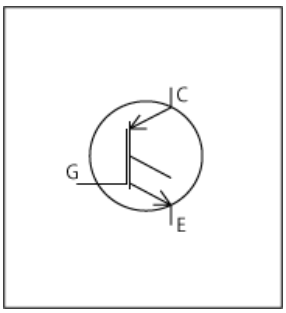
PSpice Model
Nch IGBT
RENESAS
RJH65T04BDPM-A0



Model Information

Model	An original macro model based on BSIM3 and Gummel-Poon model	
Call Name	MDC_RJH65T04BDPM-A0_PS	
Pin Assign	1:G 2:C 3:E	
File List	Model Library	MDC_RJH65T04BDPM-A0_PS01.lib
	Model Report	MDC_RJH65T04BDPM-A0_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: Jul 14, 2016
- ●Product name: RJH65T04BDPM-A0
- ●Company name: Renesas Electronics Corporation
- ●Characteristics: IcVge[Temp],IcVce[Vge],Vce(sat)Vge[Ic],Vce(sat)Temp[Ic], VthTemp[Ic],Cies,Coes,Cres,VgeQg[Vcc],VceQg[Vcc], IfVf[Temp],Transient

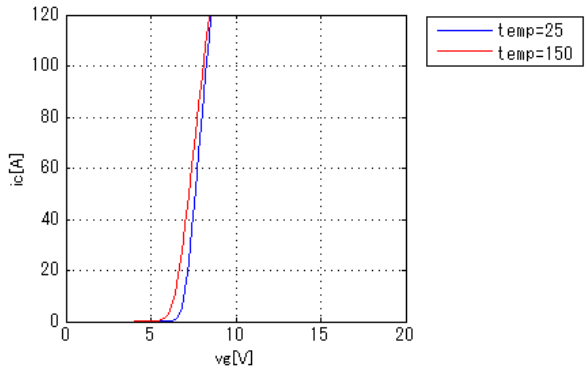
Simulation Range

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

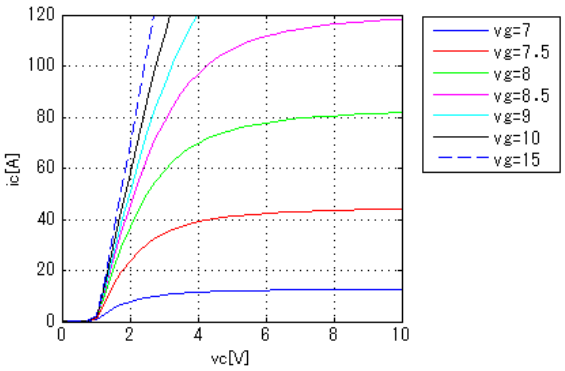
Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	650	V
Gate-emitter voltage (DC)	0	to	30	V
Temperature	-55	to	150	deg C

Simulation results are following.
Explanatory notes — : simulated

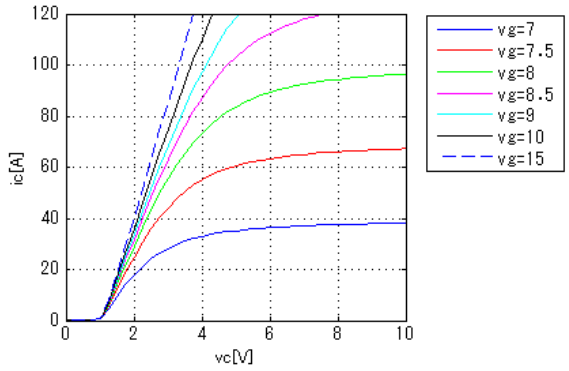
IcVge[Temp]
Vce = 10V



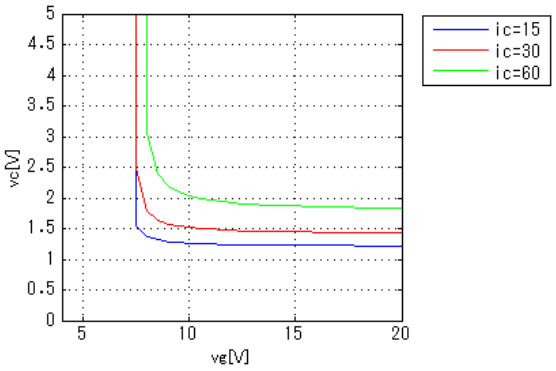
IcVce[Vge]
Temp. = 25deg C



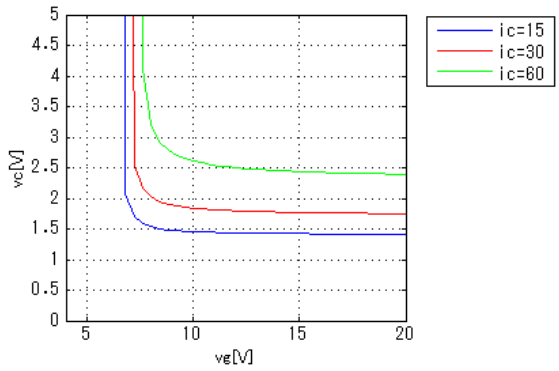
IcVce[Vge]
Temp. = 150deg C



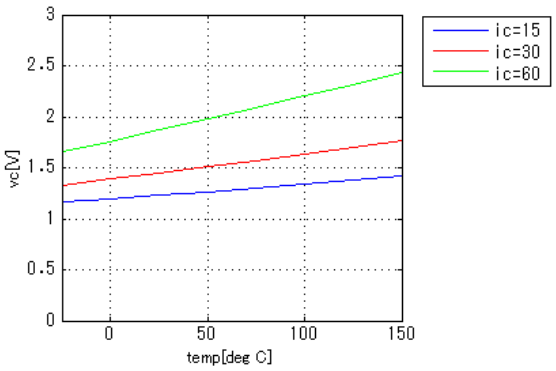
Vce(sat)Vge[Ic]
Temp. = 25deg C



Vce(sat)Vge[Ic]
Temp. = 150deg C

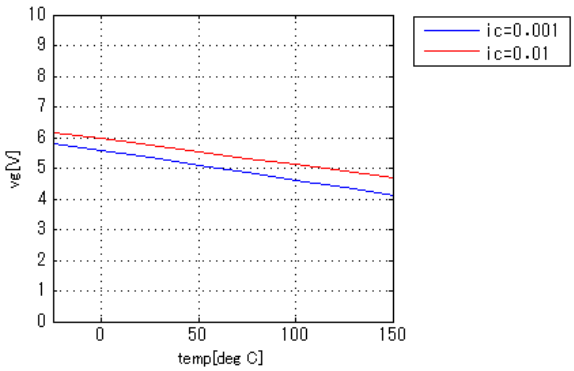


Vce(sat)Temp[Ic]
Vge = 15V

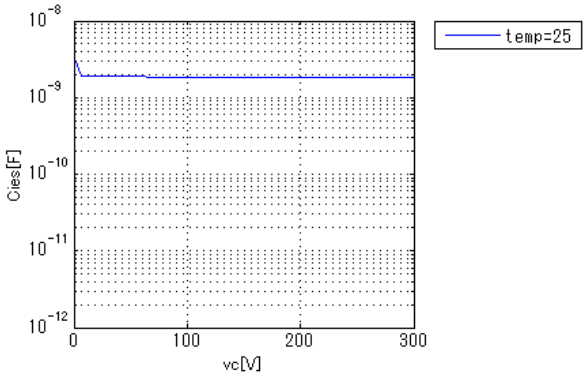


Simulation results are following.
Explanatory notes — : simulated

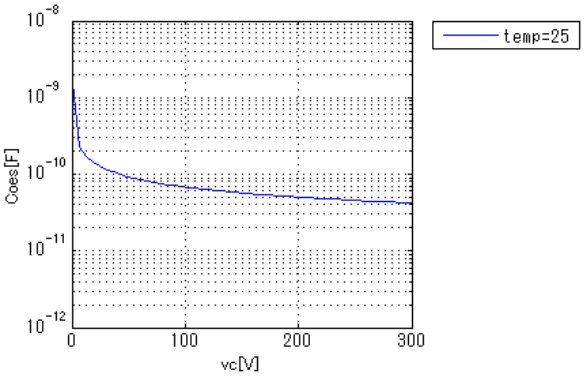
VthTemp[Ic]
Vce = 10V



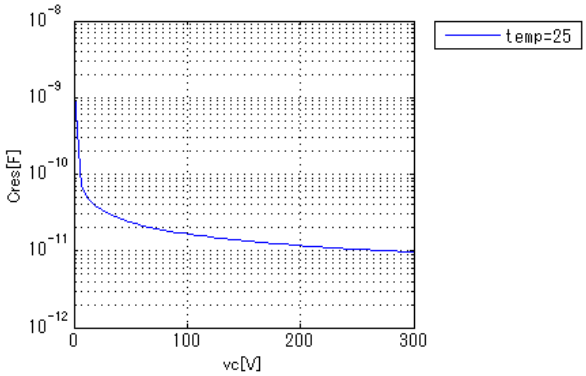
Cies
Freq. = 1MHz



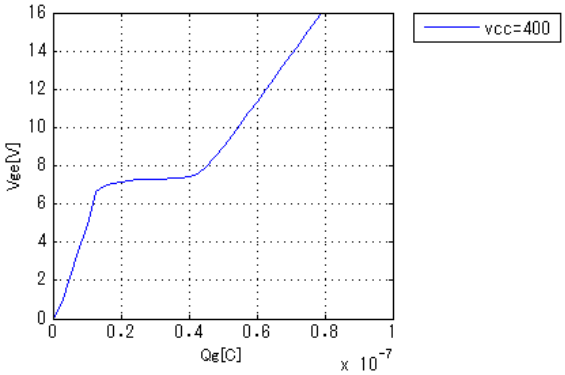
Coes
Freq. = 1MHz



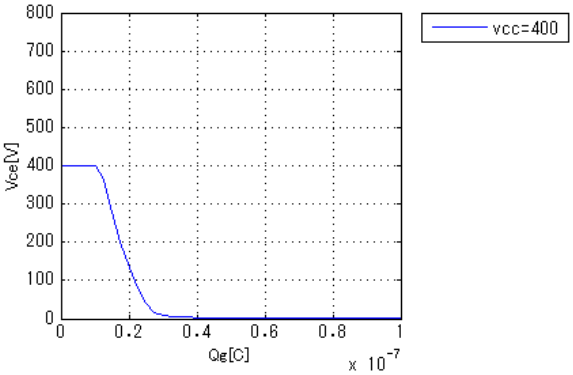
Cres
Freq. = 1MHz



VgeQg[Vcc]
Ic = 30A

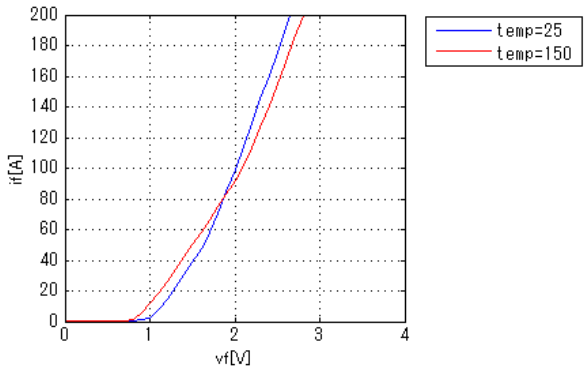


VceQg[Vcc]
Ic = 30A

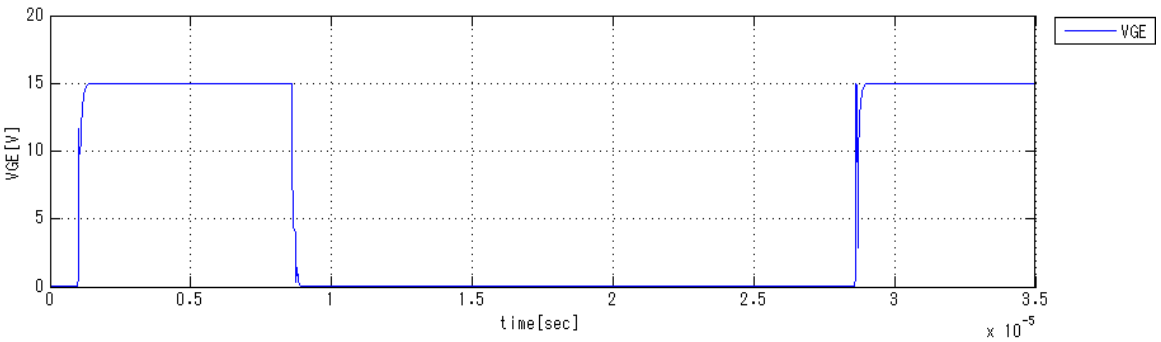


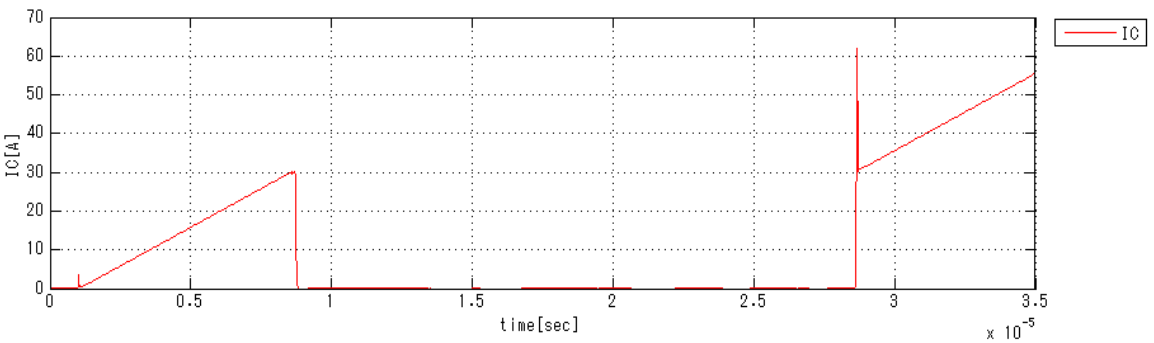
Simulation results are following.
Explanatory notes — : simulated

IfVf[Temp]



Transient





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