

PSpice Model

NPN

JCET

2SD667



Model Information

Model Gummel-Poon model
Call Name MDC_2SD667_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SD667_PS02.lib
 Model Report MDC_2SD667_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 D,Mar,2016
- Product name 2SD667
- Company name Jiangsu Changjiang Electronics Technology Co., Ltd.
- Characteristics Ic[Vce],hFEIc[Temp],Vbe(sat)Ic[Temp],Vce(sat)Ic[Temp],fT
Ic[Vce],Cob,Cib,IcVbe[Temp]

Simulation Range

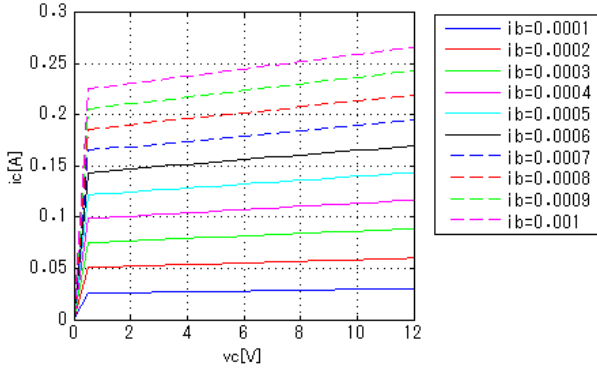
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	80	V
Base current (DC)	0	to	0.1	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

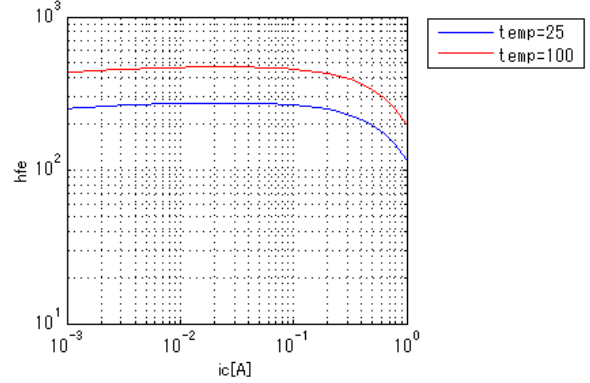
IcVce[ib]

Temp. = 25deg C



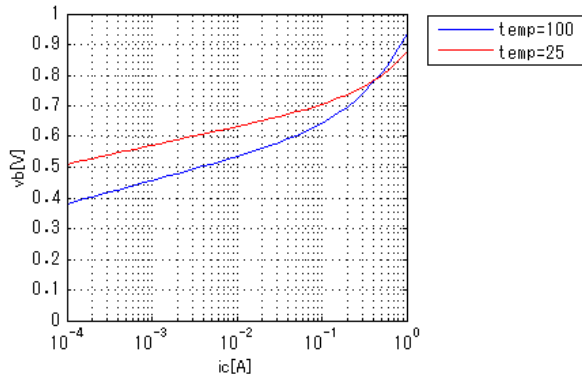
hFEIc[Temp]

Vce = 5V



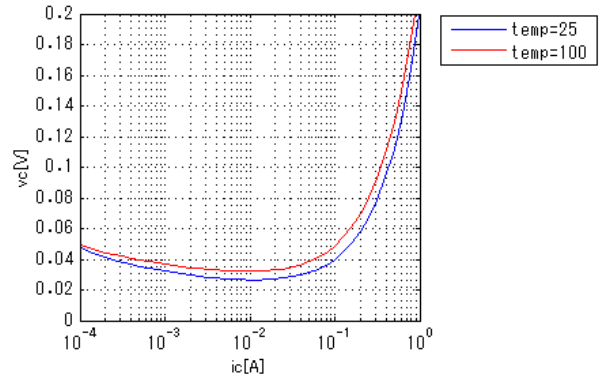
Vbe(sat)Ic[Temp]

IC/IB = 10

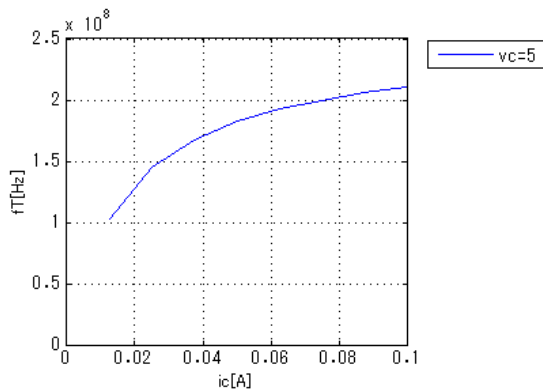


Vce(sat)Ic[Temp]

IC/IB = 10

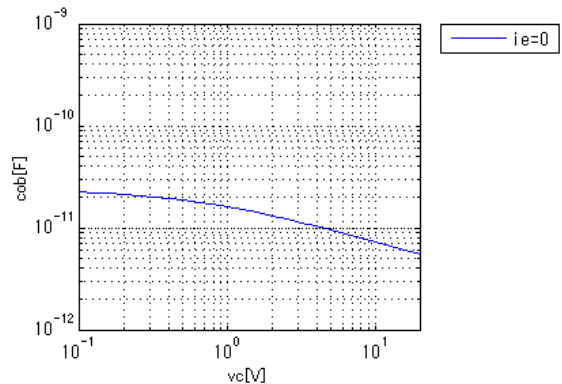


fT Ic [Vce]



Cob

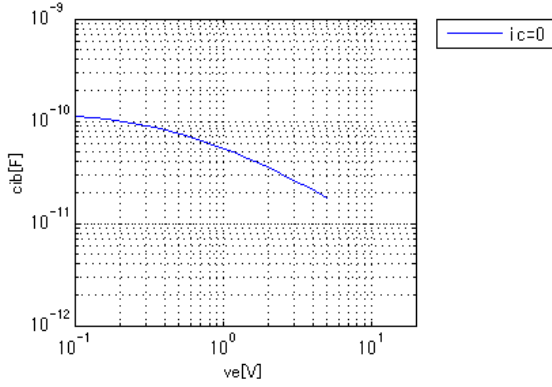
Freq. = 1MHz



Simulation results are following.
 Explanatory notes — : simulated

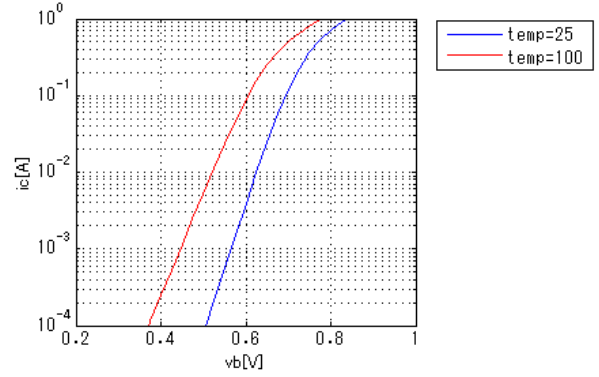
Cib

Freq. = 1MHz



IcVbe[Temp]

$V_{ce} = 5V$



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