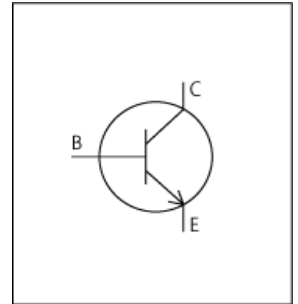


PSpice Model

NPN

ON

S2SC4617G



Model Information

Model Gummel-Poon model
Call Name MDC_S2SC4617G_PS
Pin Assign 1:B 2:E 3:C
File List Model Library MDC_S2SC4617G_PS01.lib
 Model Report MDC_S2SC4617G_PS.pdf (this file)

Verified Simulator Version PSpice version 17.2
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version July, 2014 - Rev. 6
- Product name S2SC4617G
- Company name ON Semiconductor.
- Characteristics $I_c V_{ce}[j_b], h_{FE} I_c [Temp], V_{ce}(sat) I_c [Temp]$

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	50	V
Collector current (DC)	0	to	100	mA
Temperature	-55	to	150	deg C

BJT

○ : Implemented
 × : Not Implemented
 — : Not applicable

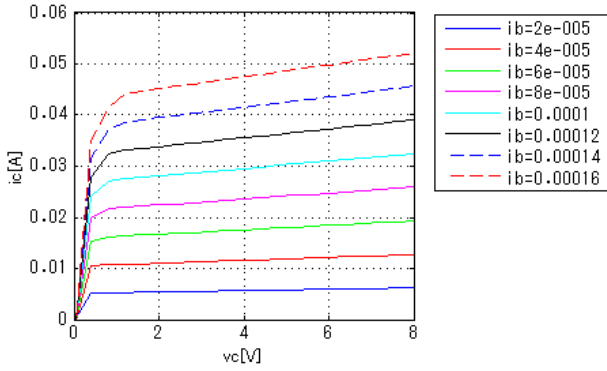
Model Functions Table
RANK=1

Functions	RANK	Implemented
IC-VBE(Temp)	1	○
IC-VCE-IB(Temp)	1	○
IC-hFE(Temp)	1	○
VCE(sat)-IC	1	○
VBE(sat)-IC	1	—
Capacitance	1	○
Transition	1	○
Switching	1	—

Simulation results are following.
 Explanatory notes — : simulated

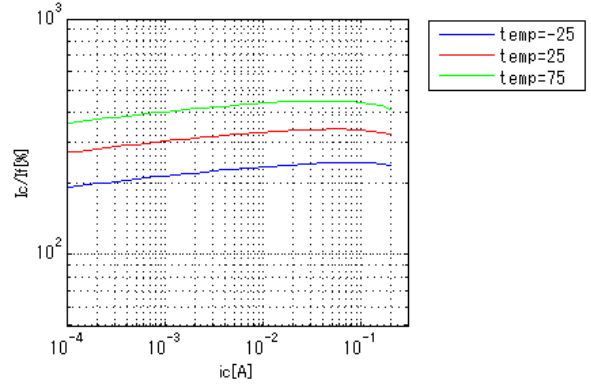
IcVce[ib]

Temp = 25degC

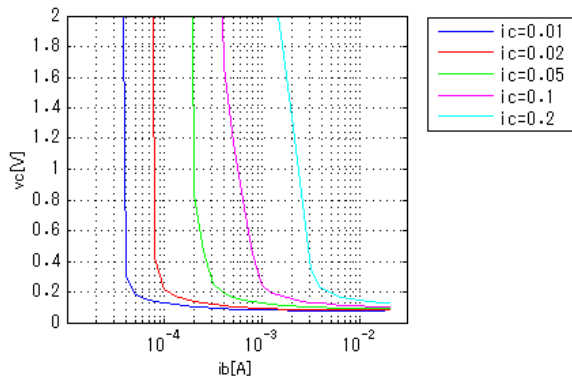


hFEIc[Temp]

Vce = 10V

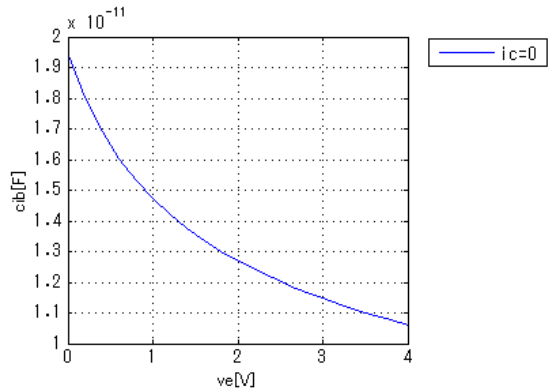


VceIb[Ic]



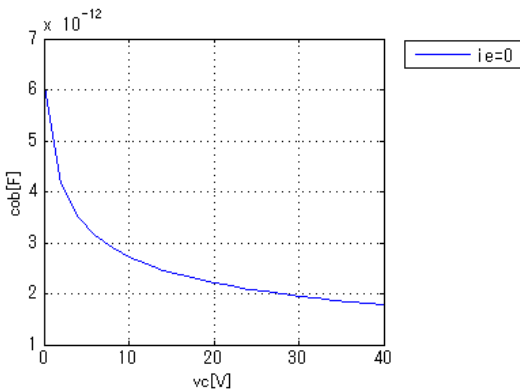
Cib

Freq = 1000000Hz



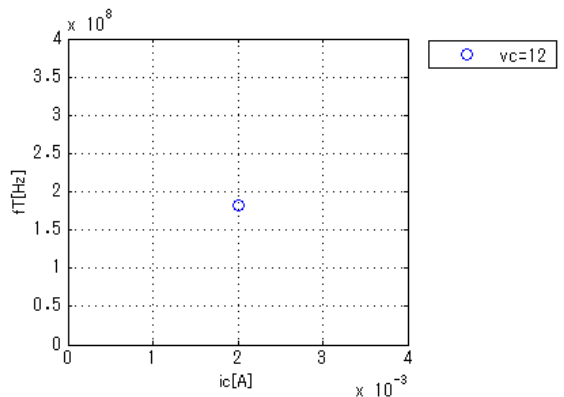
Cob

Freq = 1000000Hz



fT[Ic[Vce]]

Freq = 30000000Hz

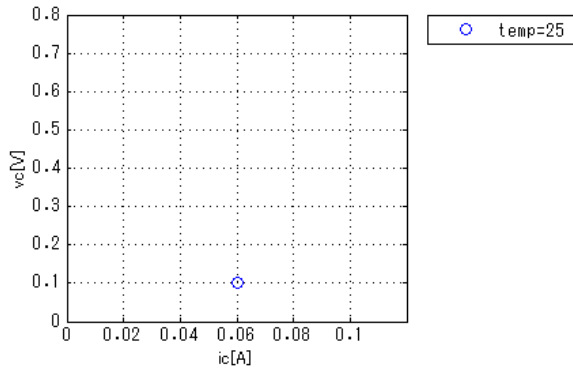


Simulation results are following.

Explanatory notes — : simulated

Vce(sat)Ic[Temp]

IC/IB = 12



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