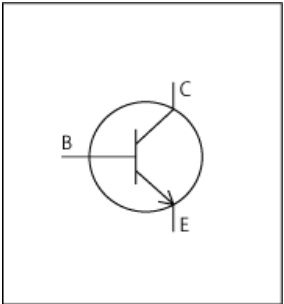


LTspice Model

NPN

ON

S2SC4617G



Model Information

Model	Gummel-Poon model		
Call Name	MDC_S2SC4617G_LT		
Pin Assign	1:B 2:E 3:C		
File List	Model Library	MDC_S2SC4617G_LT01.lib	
	Model Report	MDC_S2SC4617G_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	July, 2014 - Rev. 6
●Product name	S2SC4617G
●Company name	ON Semiconductor.
●Characteristics	IcVce[ib],hFEIc[Temp],VceIb[Ic],Cib,Cob,ftIc[Vce],Vce(sat)Ic[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

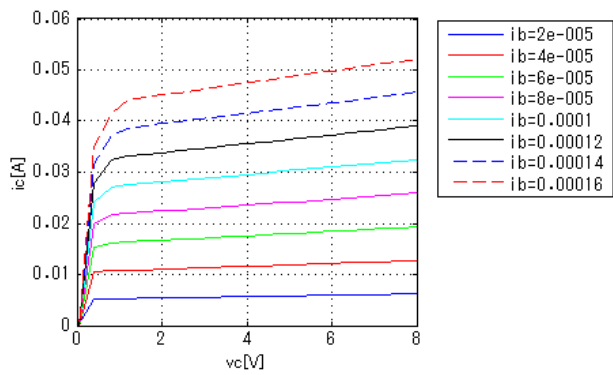
RANK=1

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

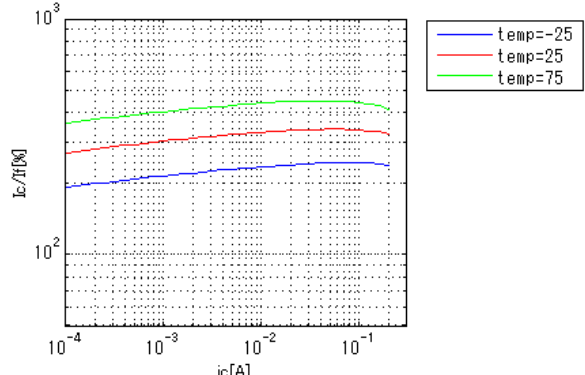
IcVce[ib]

Temp = 25degC

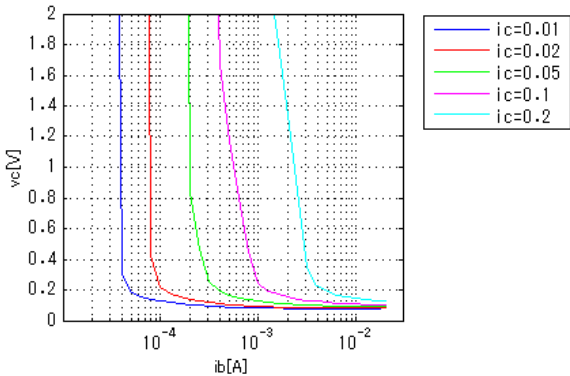


hFEIc[Temp]

Vce = 10V

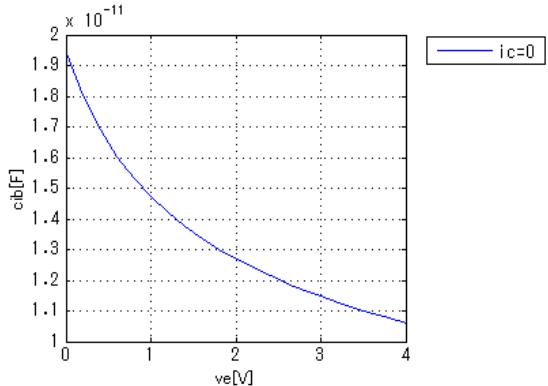


VceIb[Ic]



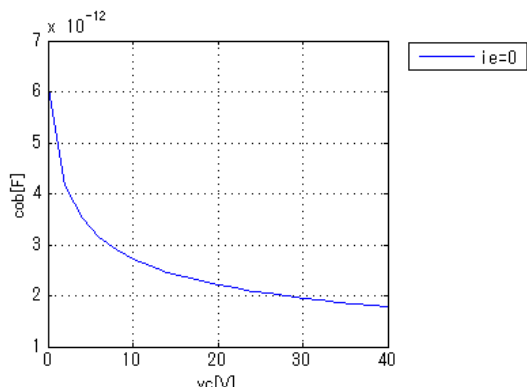
Cib

Freq = 1000000Hz



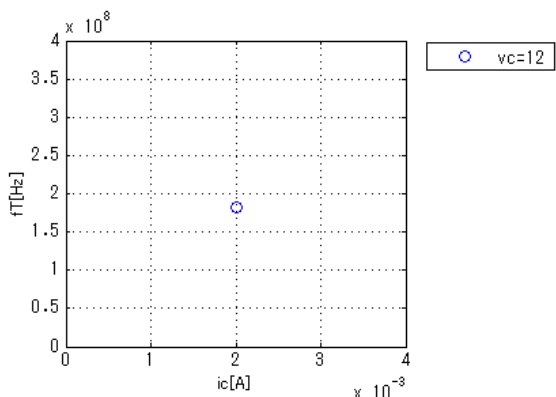
Cob

Freq = 1000000Hz



fT Ic[Vce]

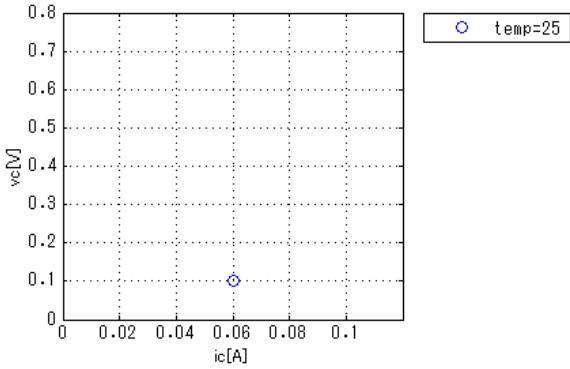
Freq = 30000000Hz



Simulation results are following.
Explanatory notes — : simulated

Vce(sat)Ic[Temp]

IC/IB = 12



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