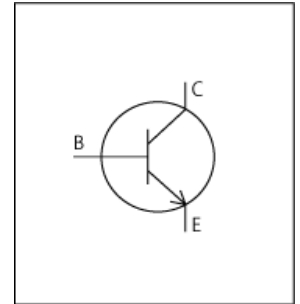


PSpice Model

NPN

Nexperia

2PC4081S



Model Information

Model Gummel-Poon model
Call Name MDC_2PC4081S_PS
Pin Assign 1:B 2:E 3:C
File List Model Library MDC_2PC4081S_PS01.lib
 Model Report MDC_2PC4081S_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 20 January 2022
- Product name 2PC4081S
- Company name Nexperia B.V.
- Characteristics $hFEIc[Temp], Vce(sat)Ic[Temp], Cob, fT Ic[Vce]$

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	150	mA
Temperature	-65	to	150	deg C

BJT

○ : Implemented
 × : Not Implemented
 — : Not applicable

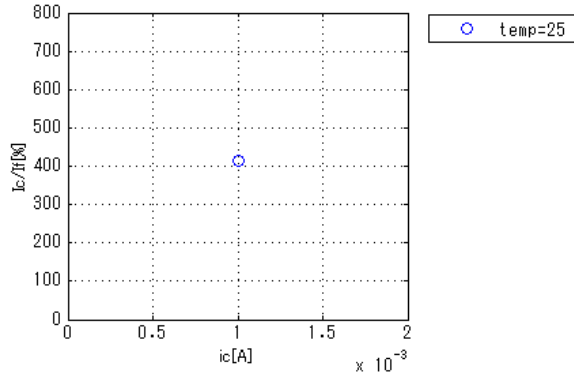
Model Functions Table
RANK=1

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

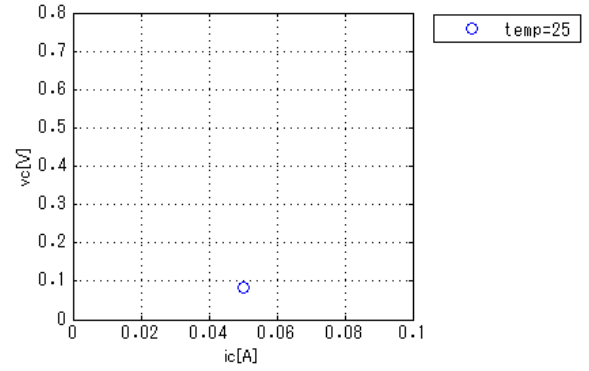
hFEIc[Temp]

Vce = 6V



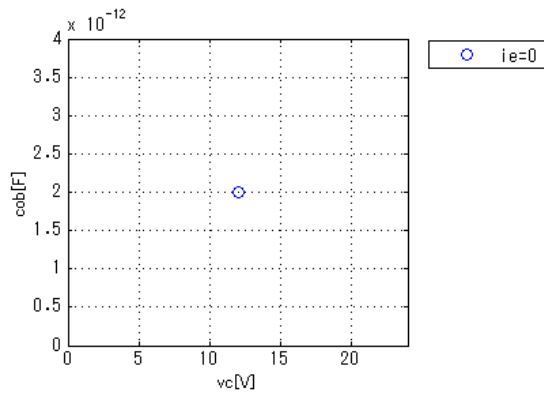
Vce(sat)Ic[Temp]

IC/IB = 10



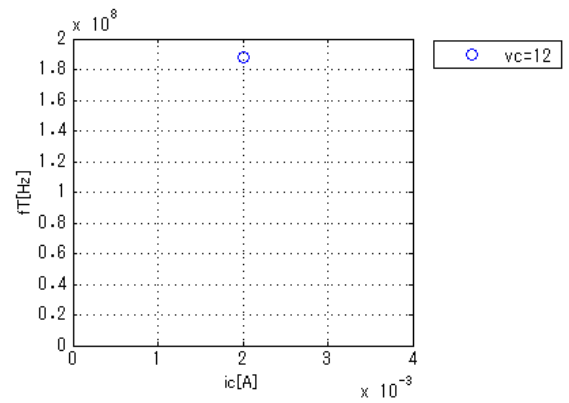
Cob

Freq = 1000000Hz



fT[Ic[Vce]]

Freq = 1000000000Hz



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