

PSpice Model

PNP

ON

NSV1C300ET4G



Model Information

Model Gummel-Poon model
Call Name MDC_NSV1C300ET4G_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_NSV1C300ET4G_PS02.lib
 Model Report MDC_NSV1C300ET4G_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 Rev.7
- Product name NSV1C300ET4G
- Company name ON Semiconductor.
- Characteristics $hFE_Ic[Temp]$, $V_{ce(sat)}Ic[Temp]$, $V_{be(sat)}Ic[Temp]$, $IcV_{be}[Temp]$, $V_{ce(sat)}Ib[Ic]$, C_{ib} , C_{ob} , $fT[Ic[Vce]]$

Simulation Range

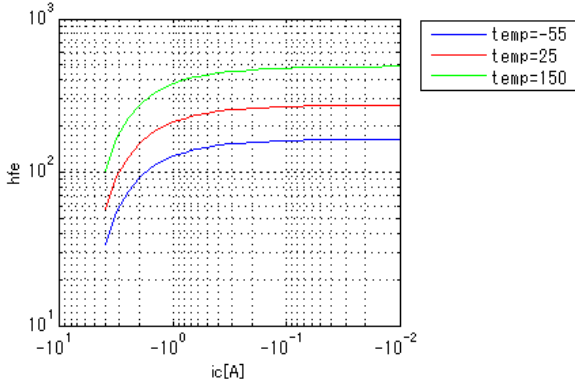
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-100	V
Base current (DC)	0	to	-0.50	A
Temperature	-65	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

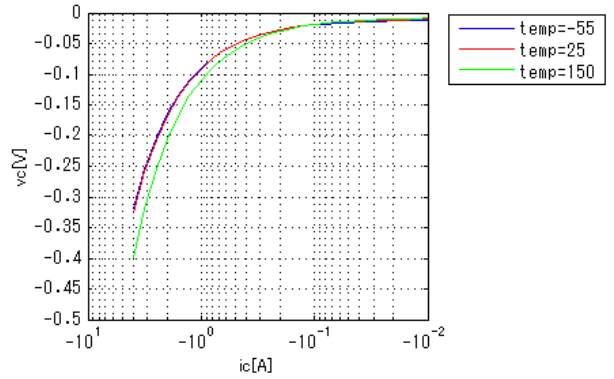
hFEIc[Temp]

Vce = -2V



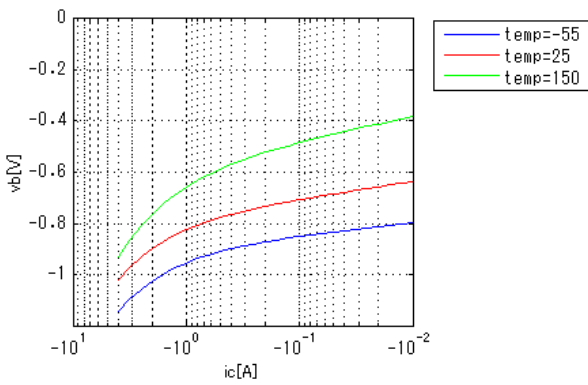
Vce(sat)Ic[Temp]

IC/IB = 10



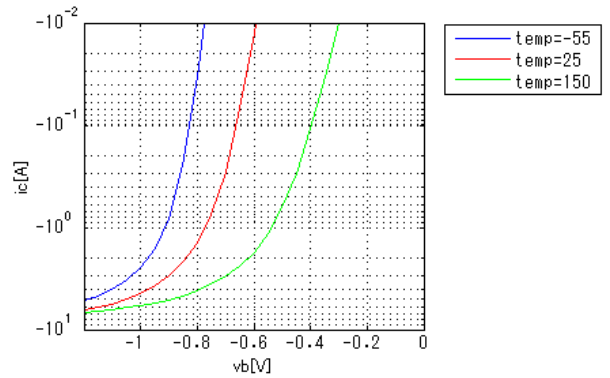
Vbe(sat)Ic[Temp]

IC/IB = 10

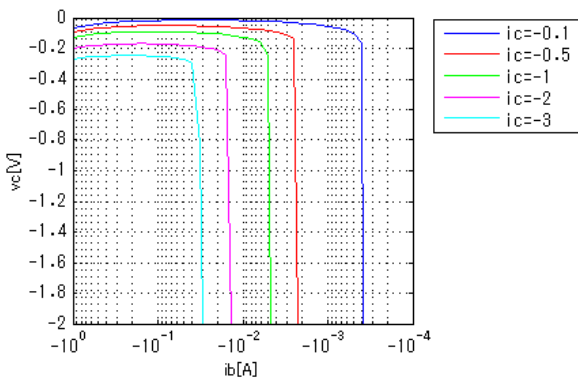


IcVbe[Temp]

Vce = -2V

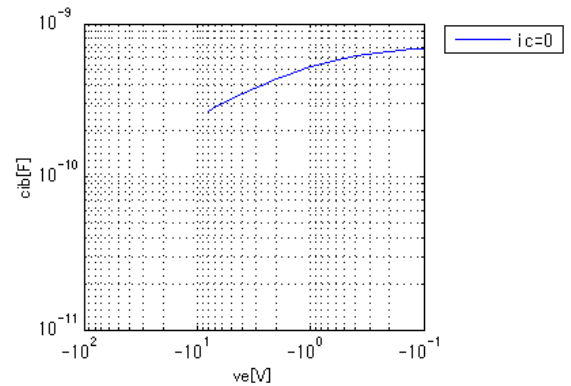


Vce(sat)Ib[Ic]



Cib

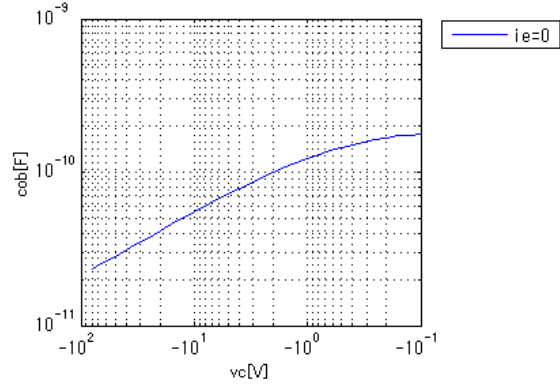
Freq. = 1MHz



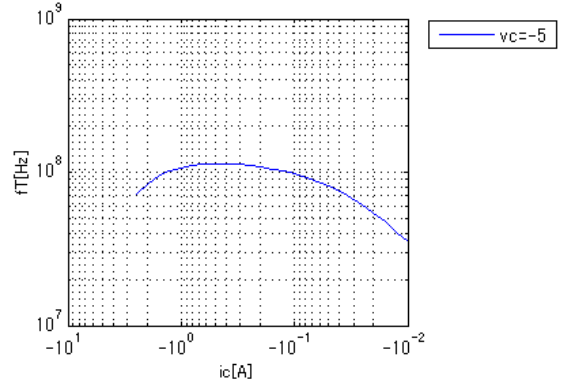
Simulation results are following.
 Explanatory notes — : simulated

Cob

Freq. = 1MHz



fTlc[Vce]



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