

PSpice Model

PNP

ON

NSS40500UW3T2G



Model Information

Model Gummel-Poon model
Call Name MDC_NSS40500UW3T2G_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_NSS40500UW3T2G_PS02.lib
 Model Report MDC_NSS40500UW3T2G_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. 2
- Product name NSS40500UW3T2G
- Company name ON Semiconductor.
- Characteristics $V_{ce(sat)}$, I_c [Temp], $h_{FE}I_c$ [Temp], I_cV_{be} [Temp], V_{ceIb} [Ic], C_{ib} , C_{ob}

Simulation Range

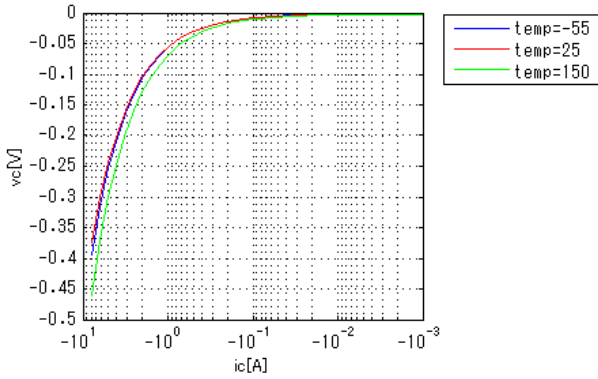
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-40	V
Base current (DC)	0	to	-0.50	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

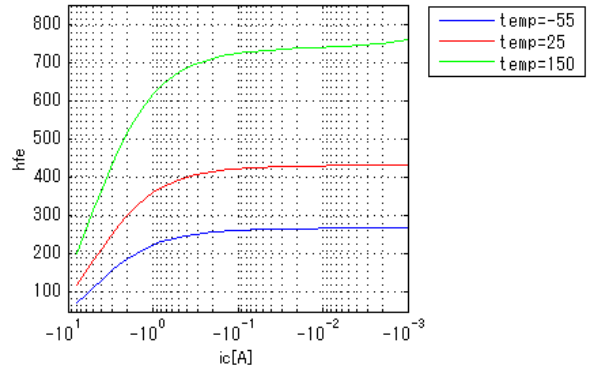
Vce(sat)Ic[Temp]

IC/IB = 10



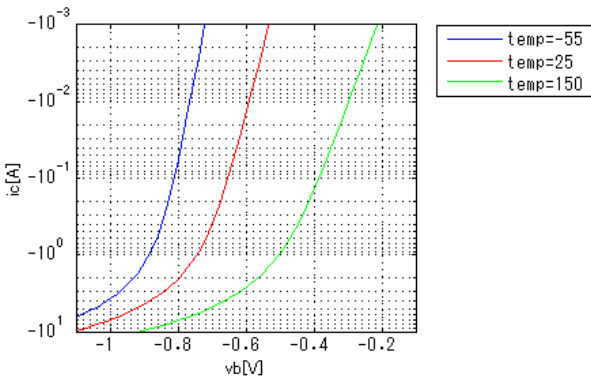
hFEIc[Temp]

Vce = -2V

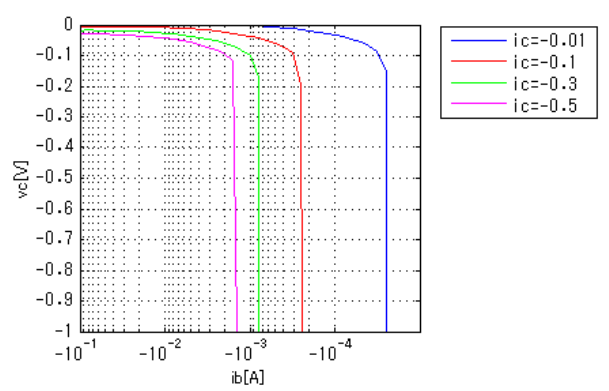


IcVbe[Temp]

Vce = -1V

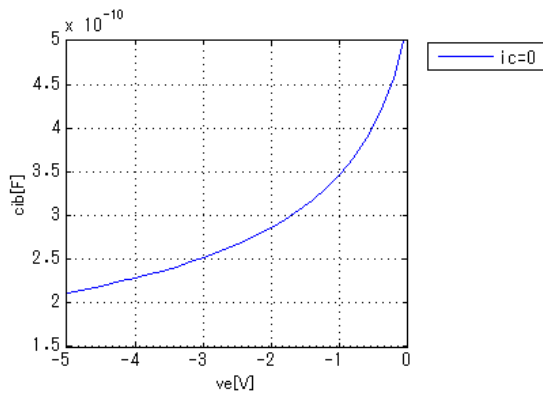


Vcelb[Ic]



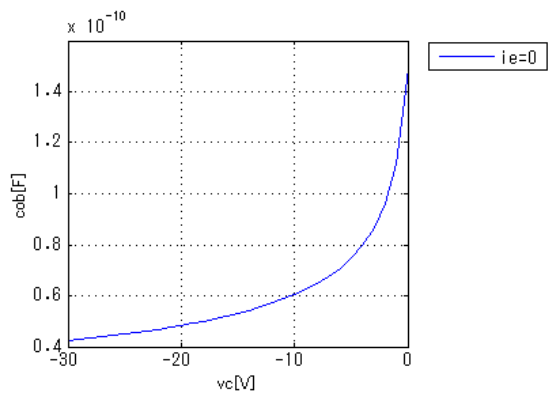
Cib

Freq. = 1MHz



Cob

Freq. = 1MHz



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