

PSpice Model

PNP

ON

NSV40200UW6T1G



Model Information

Model Gummel-Poon model
Call Name MDC_NSV40200UW6T1G_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_NSV40200UW6T1G_PS02.lib
 Model Report MDC_NSV40200UW6T1G_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 NSV40200UW6T1G
- Company name ON Semiconductor.
- Characteristics $V_{ce(sat)}(I_c[Temp], hFE(I_c[Temp], V_{be(sat)}(I_c[Temp], I_c, V_{be[Temp]}, V_{ce(sat)}(I_b[I_c], C_{ib}, C_{ob}$

Simulation Range

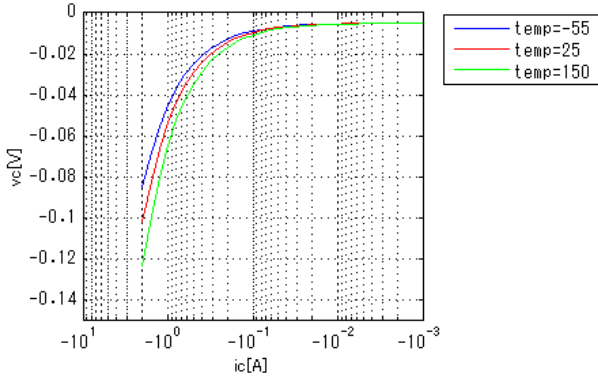
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-40	V
Base current (DC)	0	to	-0.20	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

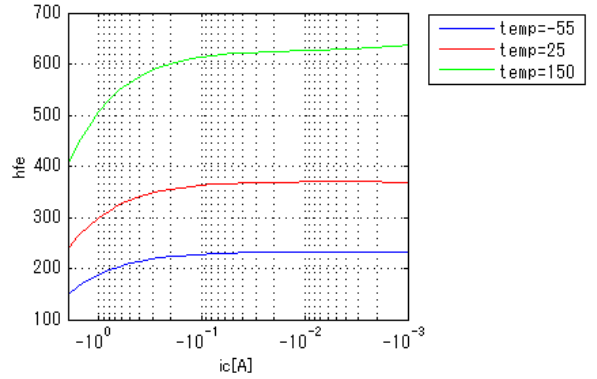
Vce(sat)Ic[Temp]

IC/IB = 10



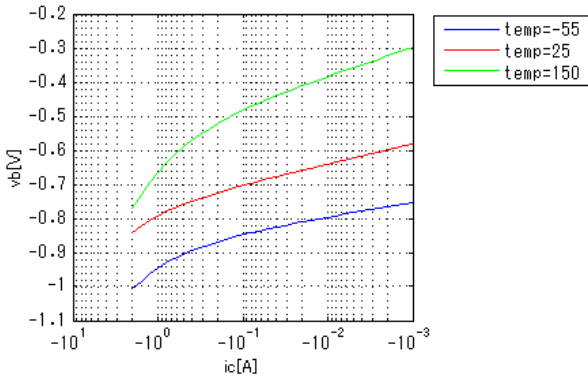
hFEIc[Temp]

Vce = -2V



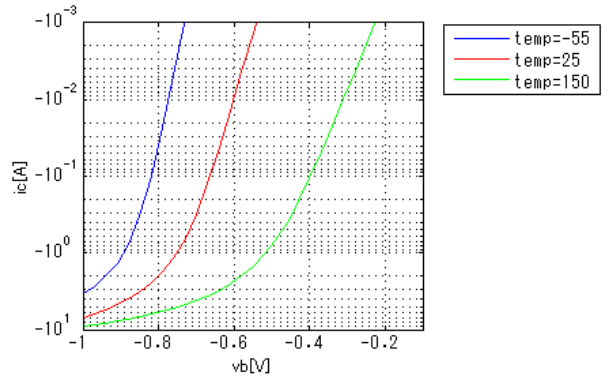
Vbe(sat)Ic[Temp]

IC/IB = 10

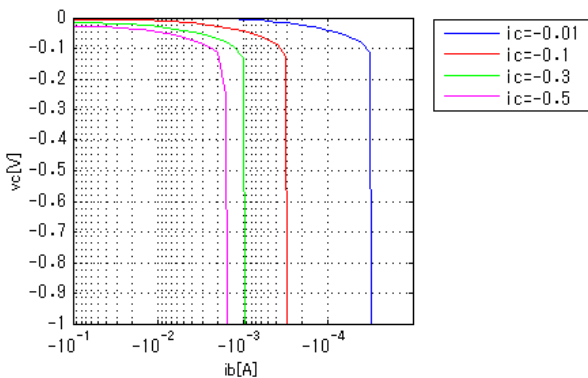


IcVbe[Temp]

Vce = -1V

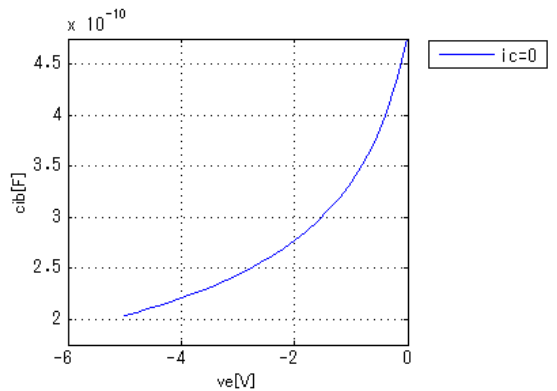


Vce(sat)Ib[Ic]



Cib

Freq. = 1MHz

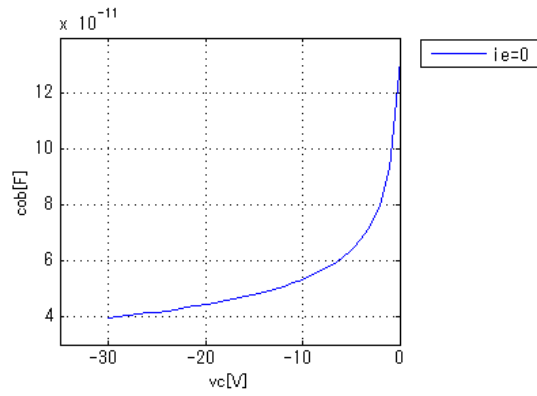


Simulation results are following.

Explanatory notes — : simulated

Cob

Freq. = 1MHz



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