

PSpice Model

NPN

ON

FJPF13009



Model Information

Model Gummel-Poon model
Call Name MDC_FJPF13009_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_FJPF13009_PS02.lib
 Model Report MDC_FJPF13009_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. 1.2.1
- Product name FJPF13009
- Company name ON Semiconductor.
- Characteristics $hFE(Ic[Temp], Vbe(sat)Ic[hFE], Vce(sat)Ic[hFE], Cob$

Simulation Range

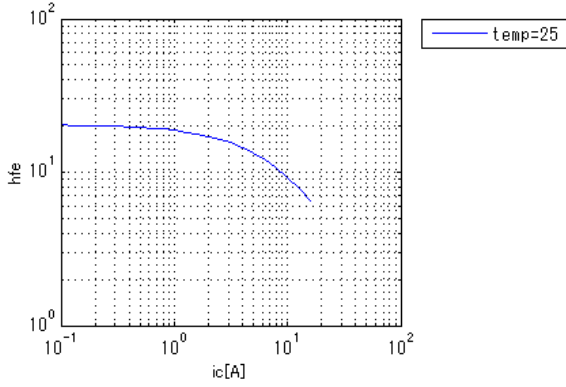
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

| Item | Range | | | Unit |
|--------------------------------|-------|----|------|-------|
| | Min. | | Max. | |
| Collector-emitter voltage (DC) | 0 | to | 400 | V |
| Base current (DC) | 0 | to | 6 | A |
| Temperature | -65 | to | 150 | deg C |

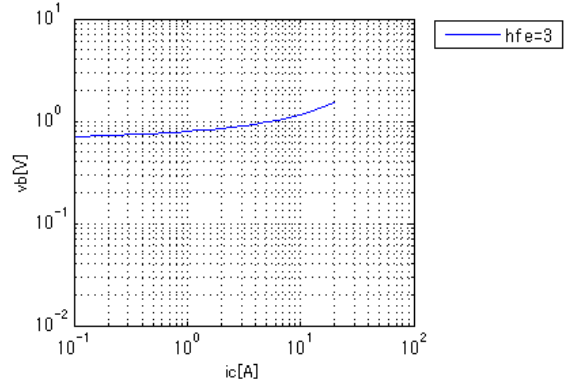
Simulation results are following.
 Explanatory notes — : simulated

hFEIc[Temp]

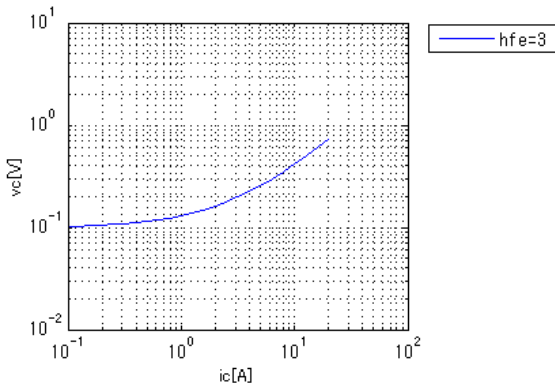
Vce = 5V



Vbe(sat)Ic[hFE]

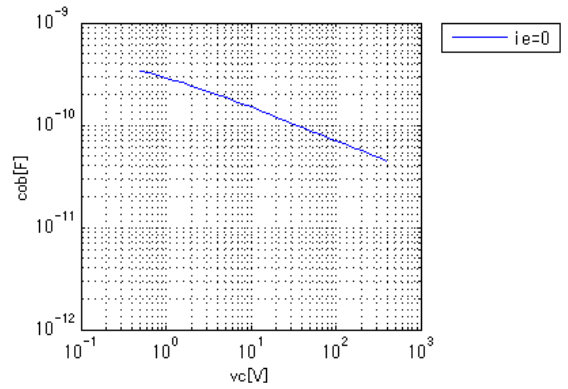


Vce(sat)Ic[hFE]



Cob

Freq. = 1MHz



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