

PSpice Model

PNP

TOSHIBA

2SA1312



Model Information

Model Gummel-Poon model
Call Name MDC_2SA1312_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SA1312_PS02.lib
 Model Report MDC_2SA1312_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 Unknown
- Product name 2SA1312
- Company name Toshiba Corporation
- Characteristics $I_{cVce}[ib], I_{cVbe}[Temp], hFEI_{c}[Temp], V_{ce(sat)}I_{c}[Temp], C_{ob}$

Simulation Range

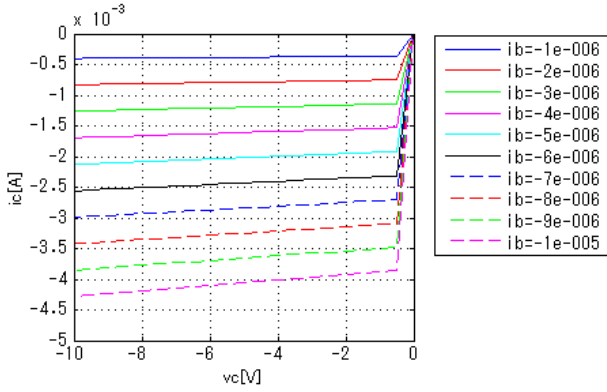
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-120	V
Base current (DC)	0	to	-20m	A
Temperature	-55	to	125	deg C

Simulation results are following.
 Explanatory notes — : simulated

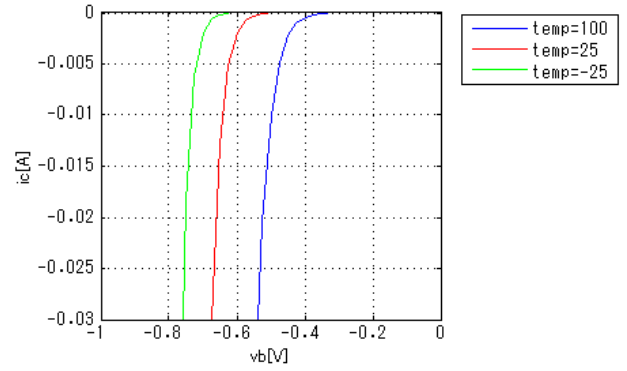
IcVce[ib]

Temp. = 25deg C



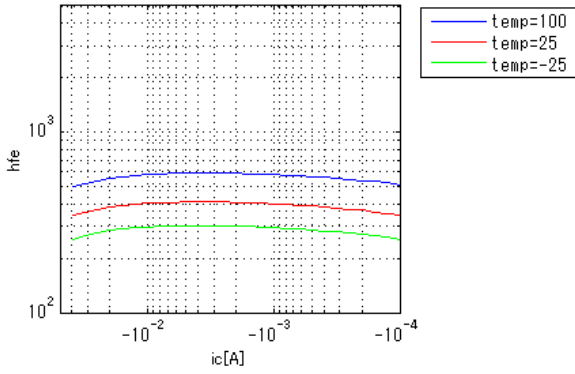
IcVbe[Temp]

Vce = -6V



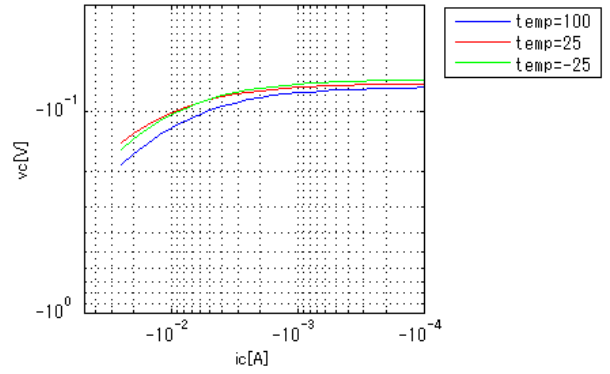
hFEIc[Temp]

Vce = -6V



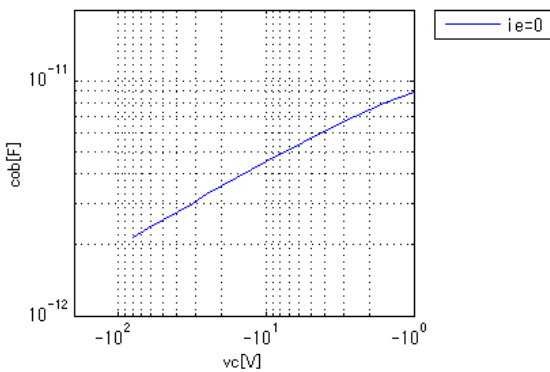
Vce(sat)Ic[Temp]

$I_C/I_B = 10$



Cob

Freq. = 1MHz



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