

PSpice Model

PNP

ROHM

2SA2094



Model Information

Model Mextram model
Call Name MDC_2SA2094_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SA2094_PS01.lib
 Model Report MDC_2SA2094_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 2013.05 - Rev.B
- Product name 2SA2094
- Company name ROHM Co., Ltd.
- Characteristics $I_c V_{be}[Temp], I_c V_{ce}[I_b], hFE I_c[Temp], hFE I_c[V_{ce}], V_{ce}(sat) I_c[Temp], V_{ce}(sat) I_c[hFE], V_{be}(sat) I_c[Temp], C_{ob}, fT I_c[V_{ce}]$

Simulation Range

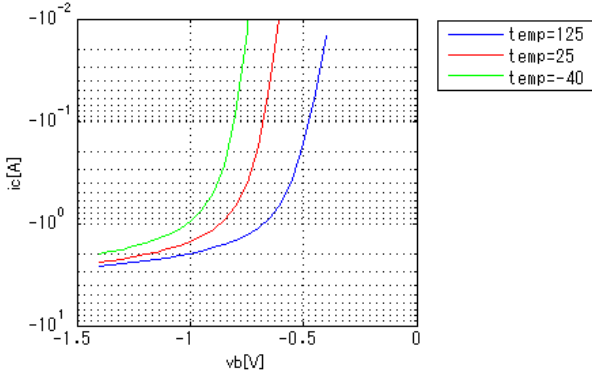
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-60	V
Base current (DC)	0	to	-0.20	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

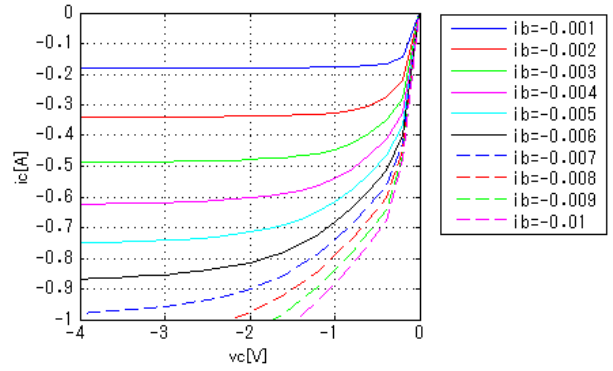
IcVbe[Temp]

Vce = -2V



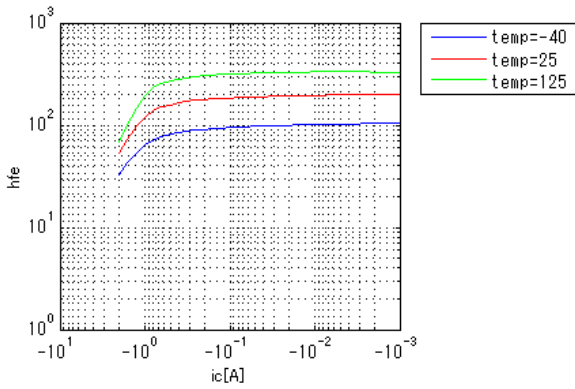
IcVce[ib]

Temp. = 25deg C

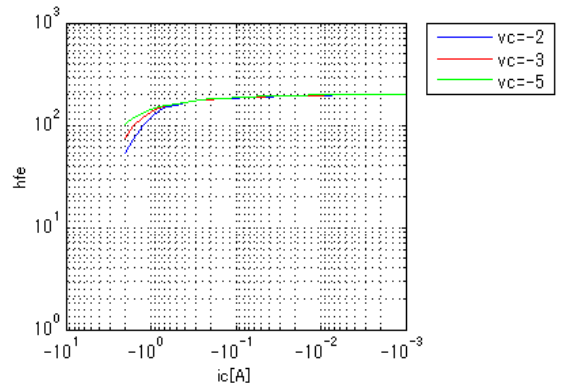


hFEIc[Temp]

Vce = -2V

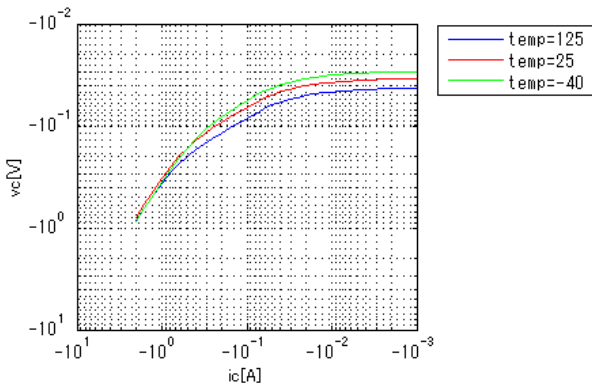


hFEIc[Vce]

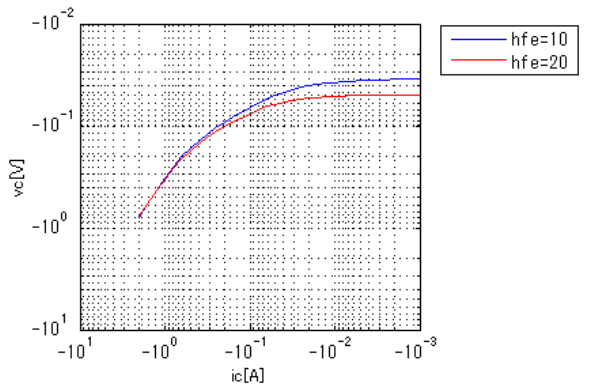


Vce(sat)Ic[Temp]

IC/IB = 10



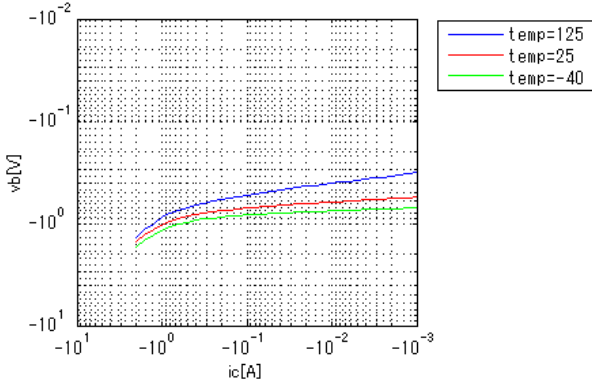
Vce(sat)Ic[hFE]



Simulation results are following.
 Explanatory notes — : simulated

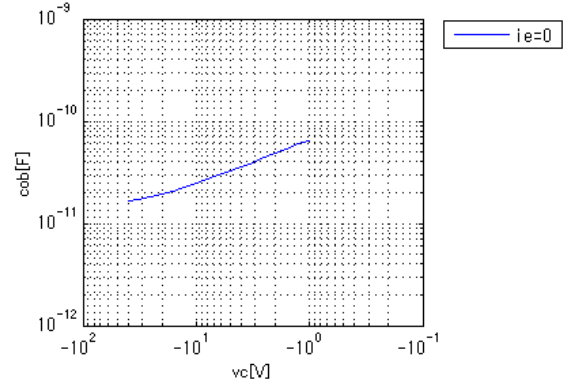
Vbe(sat)Ic[Temp]

IC/IB = 10

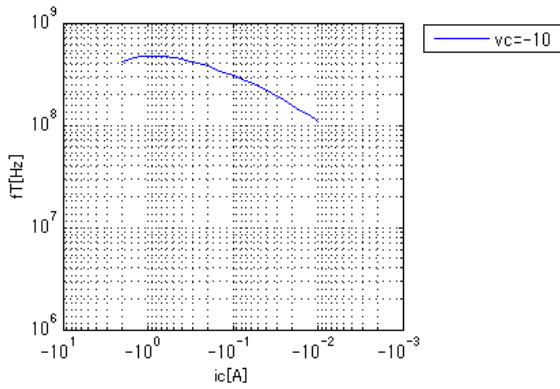


Cob

Freq. = 1MHz



fT Ic[Vce]



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