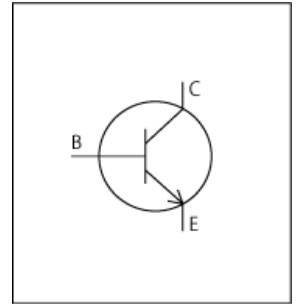


PSpice Model

NPN

Comchip

MMBT2222A-G



Model Information

Model Mextram model
Call Name MDC_MMBT2222A-G_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_MMBT2222A-G_PS01.lib
 Model Report MDC_MMBT2222A-G_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:B
- Product name MMBT2222A-G
- Company name Comchip Technology Co., Ltd.
- Characteristics $I_{cV_{ce}}[I_b], h_{FE}I_{c}[Temp], V_{ce(sat)}I_{c}[Temp], V_{be(sat)}I_{c}[Temp], I_{cV_{ce}}[Temp], C_{ob}, C_{ib}, f_T I_{c}[V_{ce}]$

Simulation Range

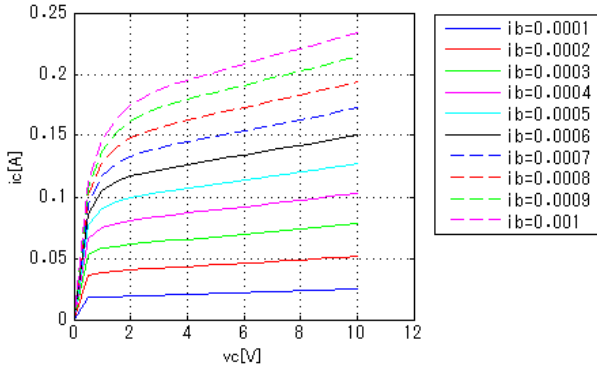
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	40	V
Base current (DC)	0	to	60	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

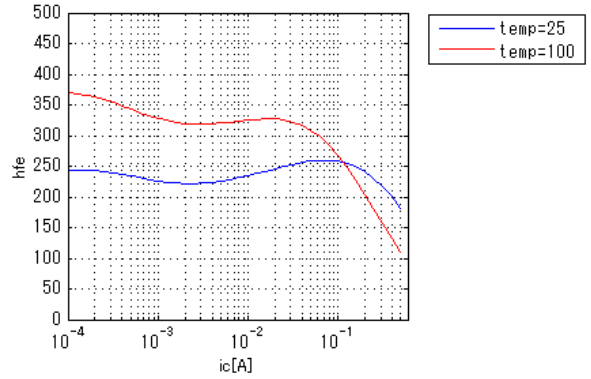
IcVce[ib]

Temp. = 25deg C



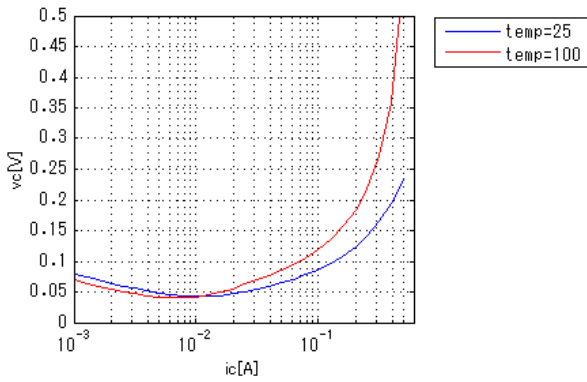
hFEIc[Temp]

$V_{ce} = 10V$



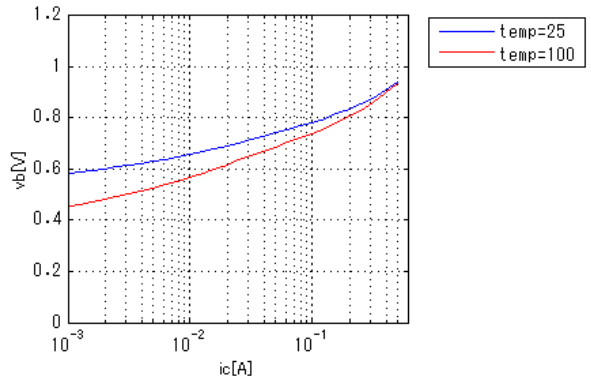
Vce(sat)Ic[Temp]

$I_C/I_B = 10$



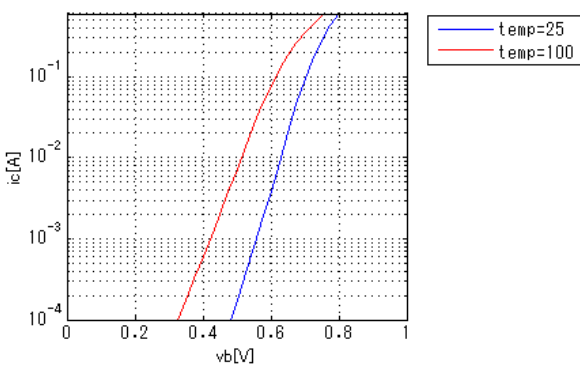
Vbe(sat)Ic[Temp]

$I_C/I_B = 10$



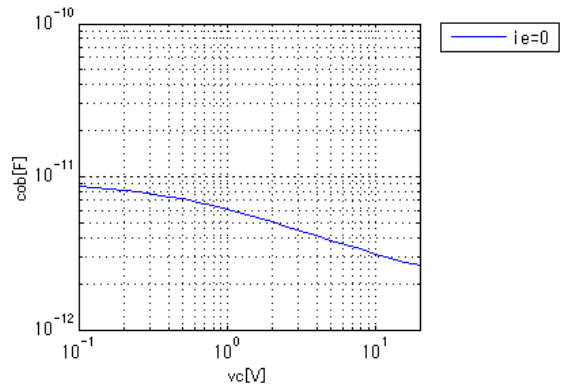
IcVbe[Temp]

$V_{ce} = 10V$



Cob

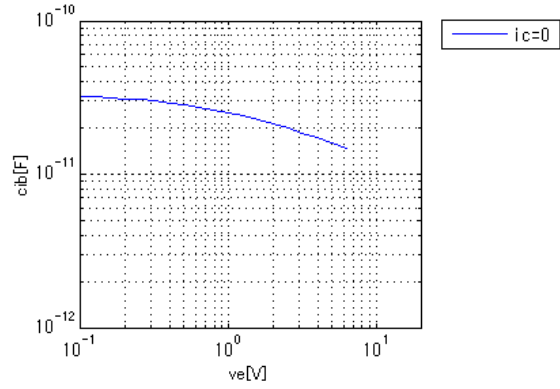
Freq. = 1MHz



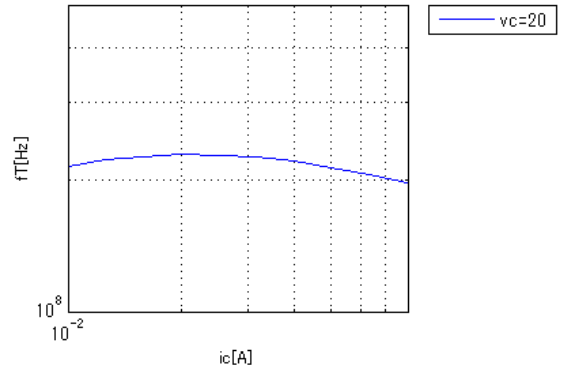
Simulation results are following.
 Explanatory notes — : simulated

Cib

Freq. = 1MHz



fTic[Vce]



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