

PSpice Model

NPN

Comchip

2SC28730-G



Model Information

Model Gummel-Poon model
Call Name MDC_2SC28730-G_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SC28730-G_PS02.lib
 Model Report MDC_2SC28730-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: A
- Product name 2SC28730-G
- Company name Comchip Technology Co., Ltd.
- Characteristics $I_{cV_{ce}}[I_b], h_{FE}I_c[Temp], V_{be(sat)}I_c[Temp], V_{ce(sat)}I_c[Temp], I_c V_{be}[Temp], C_{ob}, C_{ib}$

Simulation Range

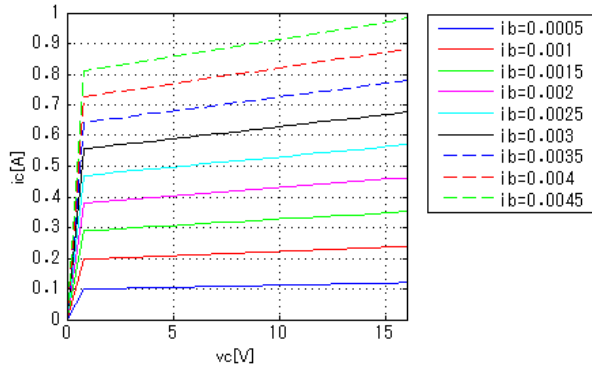
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	50	V
Base current (DC)	0	to	0.2	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

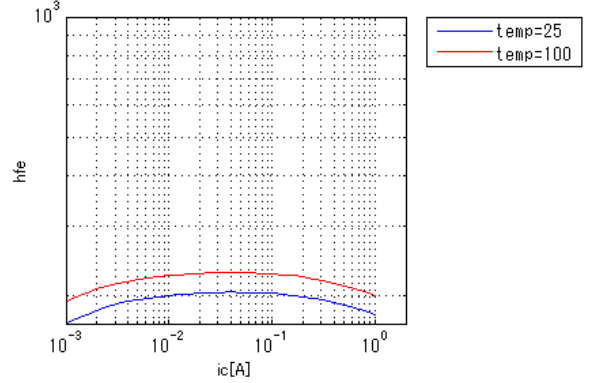
IcVce[ib]

Temp. = 25deg C



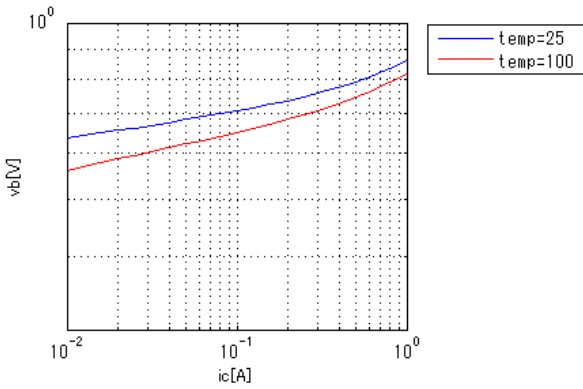
hFEIc[Temp]

Vce = 2V



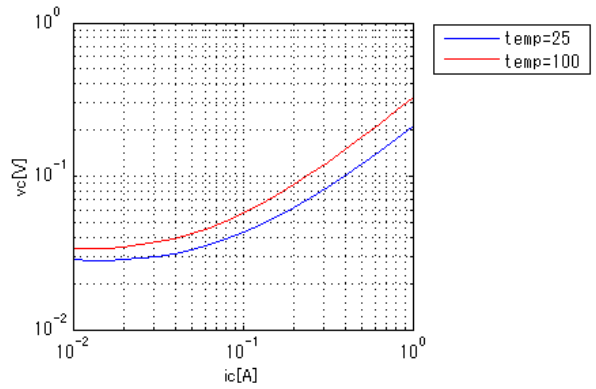
Vbe(sat)Ic[Temp]

IC/IB = 10



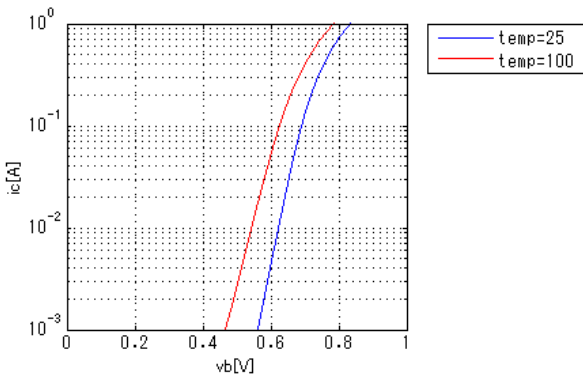
Vce(sat)Ic[Temp]

IC/IB = 10



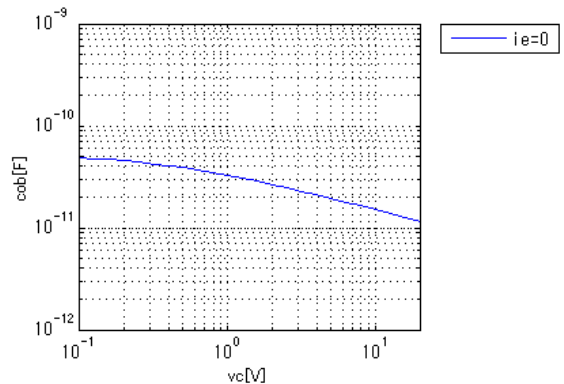
IcVbe[Temp]

Vce = 2V



Cob

Freq. = 1MHz

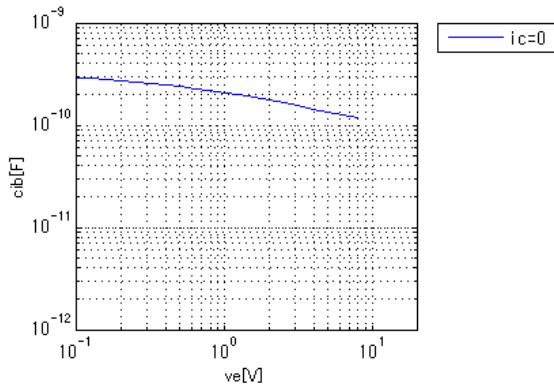


Simulation results are following.

Explanatory notes — : simulated

Cib

Freq. = 1MHz



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