

PSpice Model

NPN

TOSHIBA

TBC847



Model Information

Model Gummel-Poon model
Call Name MDC_TBC847_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_TBC847_PS02.lib
 Model Report MDC_TBC847_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 2016-08-01 Rev.1.0
- Product name TBC847
- Company name Toshiba Corporation
- Characteristics hFEIc[Temp],IcVbe[Temp],Vbe(sat)Ic[Temp],Vce(sat)Ic[Temp]

Simulation Range

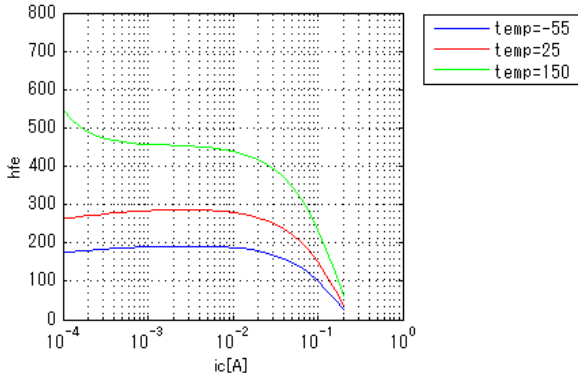
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	50	V
Base current (DC)	0	to	30m	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

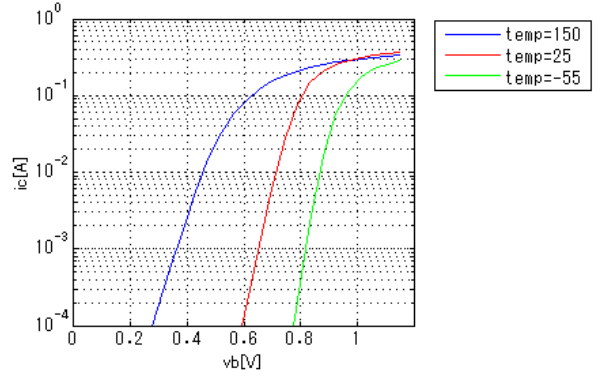
hFEIc[Temp]

Vce = 5V



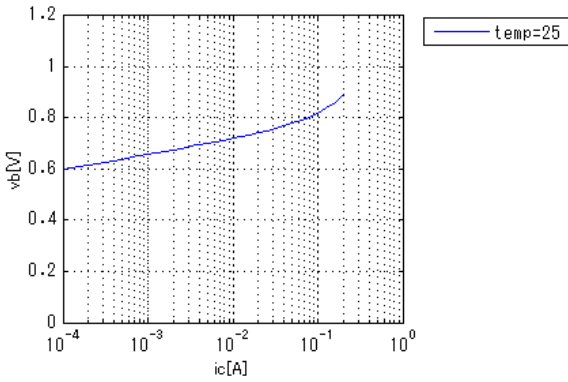
IcVbe[Temp]

Vce = 5V



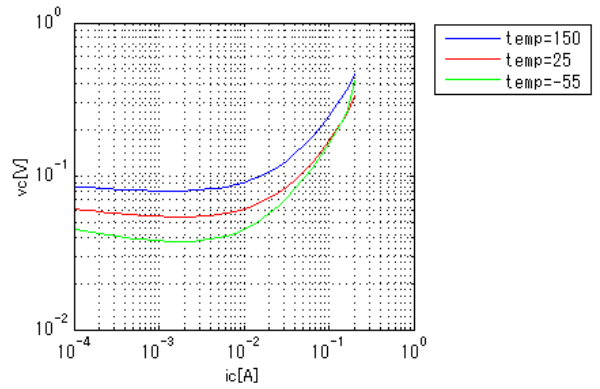
Vbe(sat)Ic[Temp]

IC/IB = 10



Vce(sat)Ic[Temp]

IC/IB = 20



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