

PSpice Model

NPN

TOSHIBA

TTC014



Model Information

Model Mextram model
Call Name MDC_TTC014_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_TTC014_PS01.lib
 Model Report MDC_TTC014_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 2014-03-10 Rev.2.0
- Product name TTC014
- Company name Toshiba Corporation
- Characteristics $I_{cV_{ce}}[I_b], h_{FE}I_{c}[Temp], V_{ce}(sat)I_{c}[Temp], V_{be}(sat)I_{c}[Temp], I_{c}V_{be}[Temp]$

Simulation Range

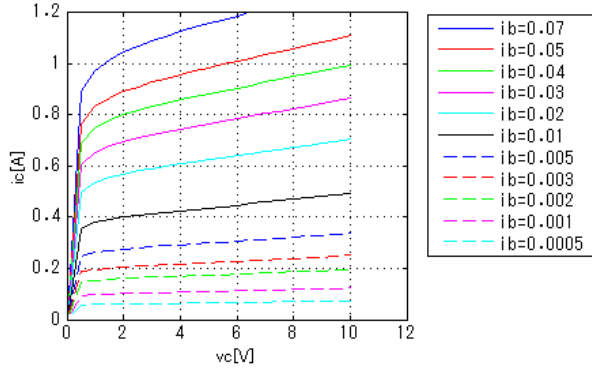
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	800	V
Base current (DC)	0	to	0.5	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

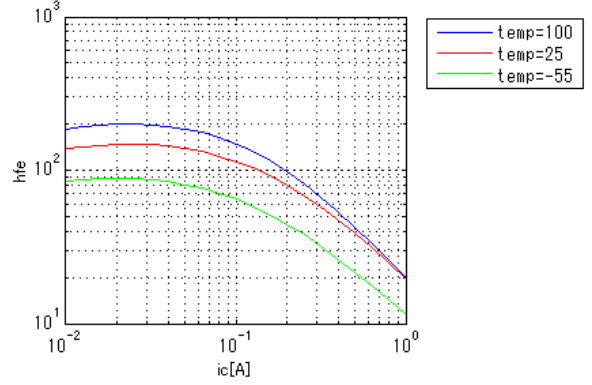
IcVce[ib]

Temp. = 25deg C



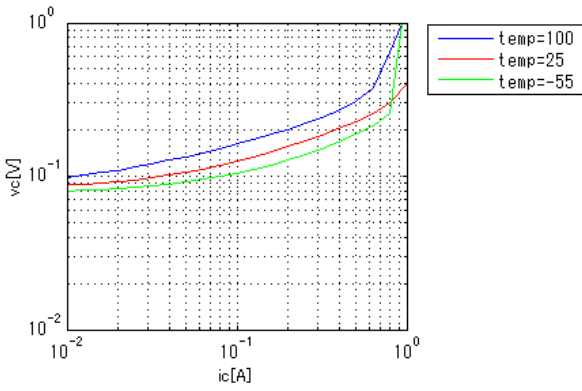
hFEIc[Temp]

Vce = 5V



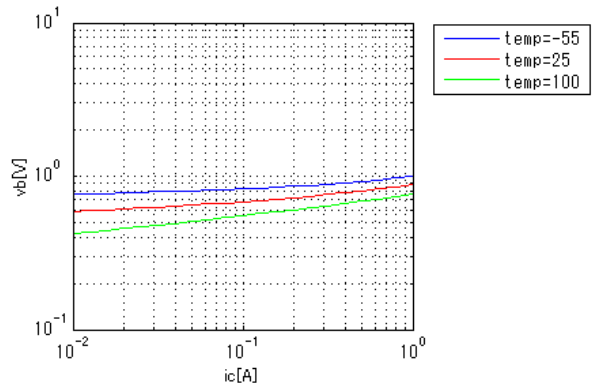
Vce(sat)Ic[Temp]

IC/IB = 10



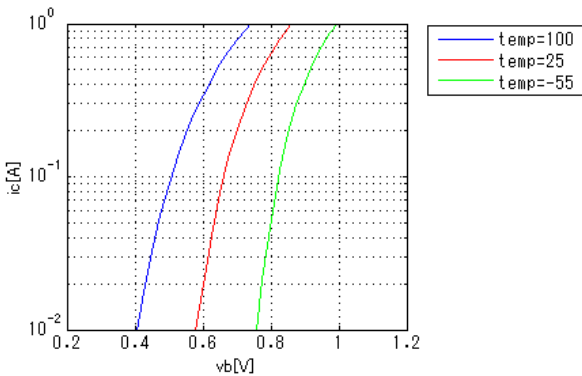
Vbe(sat)Ic[Temp]

IC/IB = 10



IcVbe[Temp]

Vce = 5V



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