

PSpice Model

PNP

TOSHIBA

TTA1452B



Model Information

Model Mextram model
Call Name MDC_TTA1452B_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_TTA1452B_PS01.lib
 Model Report MDC_TTA1452B_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 2015-08-06 Rev 4.0
- Product name TTA1452B
- Company name Toshiba Corporation
- Characteristics $I_c V_{ce}[I_b], hFE I_c[Temp], V_{ce}(sat) I_c[Temp], V_{be}(sat) I_c[Temp], I_c V_{be}[Temp]$

Simulation Range

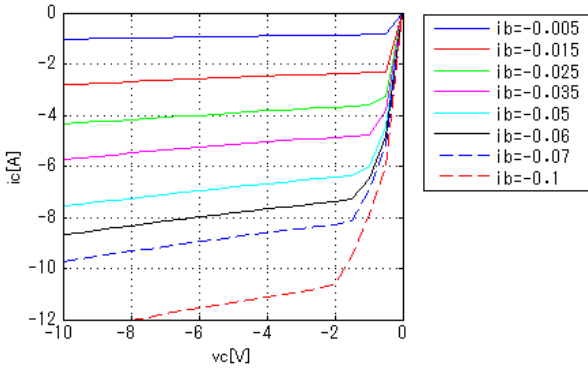
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-80	V
Base current (DC)	0	to	-2	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

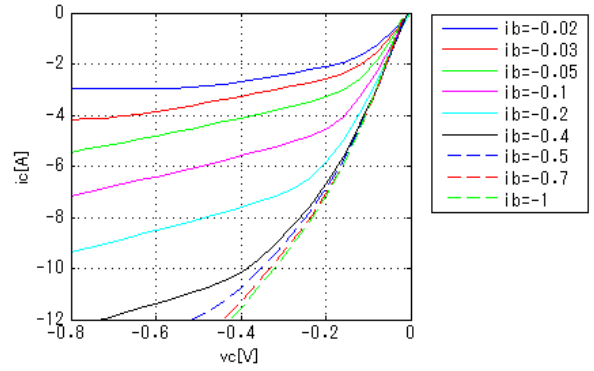
IcVce[ib]

Temp. = 25deg C



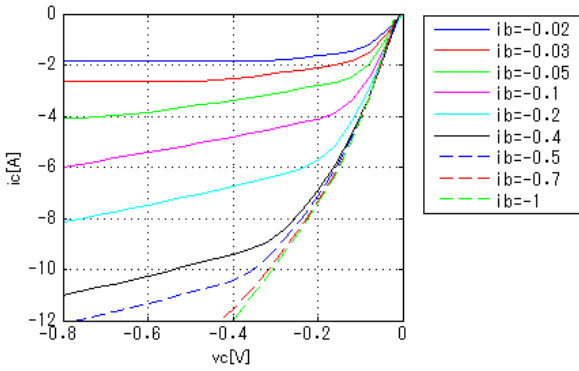
IcVce[ib]

Temp. = 25deg C



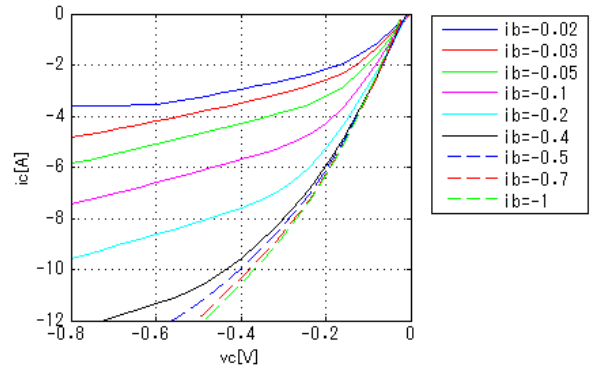
IcVce[ib]

Temp. = -55deg C



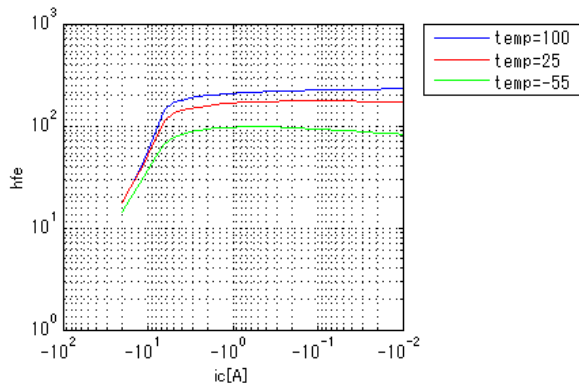
IcVce[ib]

Temp. = 100deg C



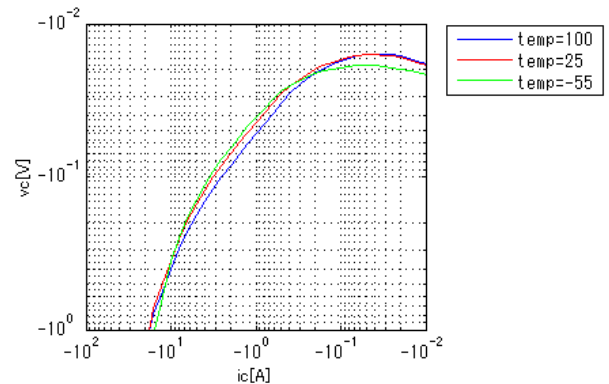
hFEIc[Temp]

Vce = -1V



Vce(sat)Ic[Temp]

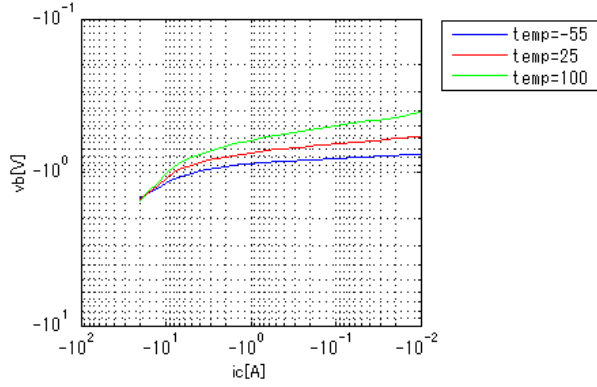
IC/IB = 20



Simulation results are following.
 Explanatory notes — : simulated

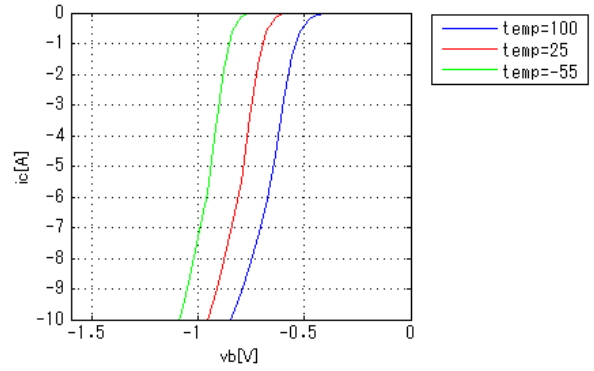
Vbe(sat)Ic[Temp]

IC/IB = 20



IcVbe[Temp]

Vce = -1V



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