

PSpice Model

NPN

TOSHIBA

2SC6105



Model Information

Model Mextram model
Call Name MDC_2SC6105_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SC6105_PS01.lib
 Model Report MDC_2SC6105_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 jun 2009
- Product name 2SC6105
- Company name Toshiba Corporation
- Characteristics $I_c V_{ce}[ib], hFE I_c[Temp], V_{ce}(sat) I_c[Temp], V_{be}(sat) I_c[Temp], I_c V_{be}[Temp]$

Simulation Range

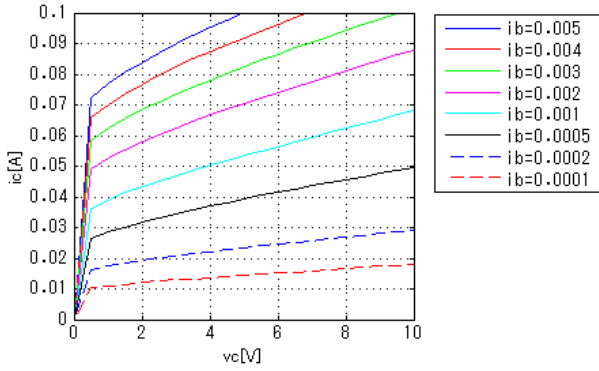
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

| Item | Range | | | Unit |
|--------------------------------|-------|----|------|-------|
| | Min. | | Max. | |
| Collector-emitter voltage (DC) | 0 | to | 600 | V |
| Base current (DC) | 0 | to | 25m | A |
| Temperature | -55 | to | 150 | deg C |

Simulation results are following.
 Explanatory notes — : simulated

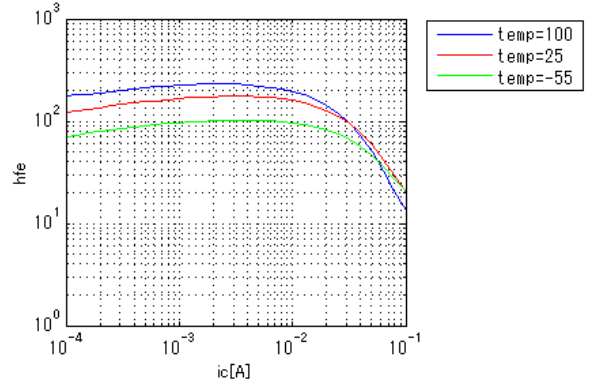
IcVce[ib]

Temp. = 25deg C



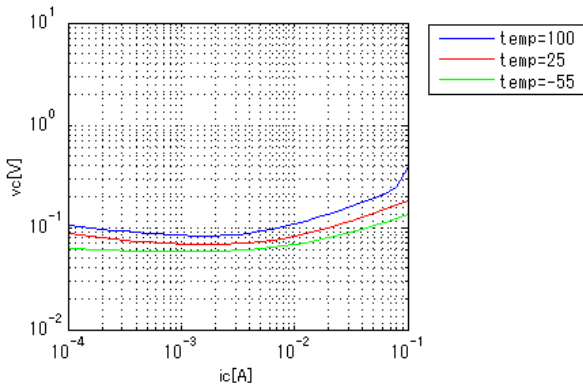
hFEIc[Temp]

Vce = 5V



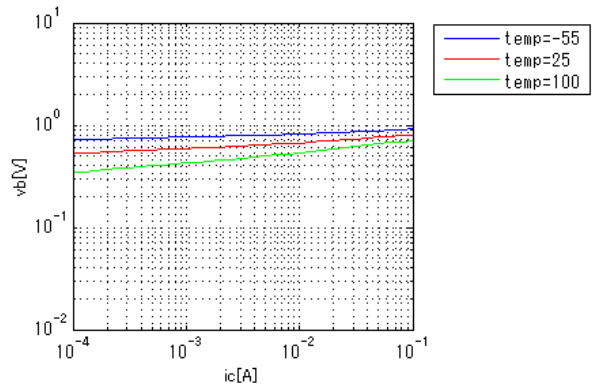
Vce(sat)Ic[Temp]

IC/IB = 5



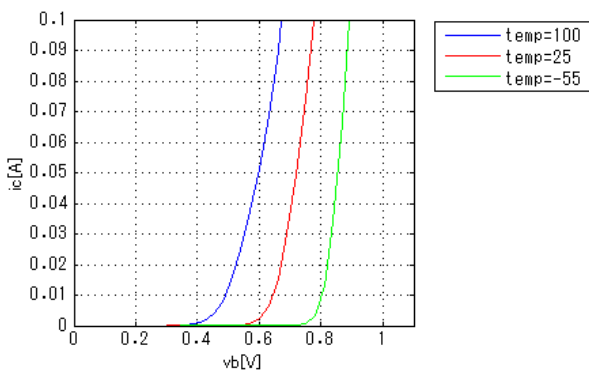
Vbe(sat)Ic[Temp]

IC/IB = 5



IcVbe[Temp]

Vce = 5V



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MoDeCH Inc.

Head Office

Location: Mitsuseimei Hachioji Bldg., 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail: model-on-support@modech.co.jp

URL: <http://www.modech.com/en/>