

LTspice Model

NPN

Comchip

KTC3875GR-G



Model Information

Model Mextram model
Call Name MDC_KTC3875GR-G_LT
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_KTC3875GR-G_LT01.lib
 Model Report MDC_KTC3875GR-G_LT.pdf (this file)

Verified Simulator Version LTspice version XVII
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version REV: A
- Product name KTC3875GR-G
- Company name Comchip Technology Co., Ltd.
- Characteristics $I_{cV_{ce}[ib], h_{FE}I_{c}[Temp], V_{be}(sat)I_{c}[Temp], V_{ce}(sat)I_{c}[Temp], I_{c}V_{be}[Temp]$

Simulation Range

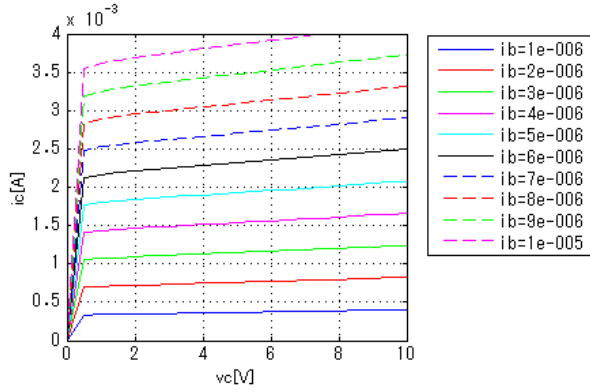
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

| Item | Range | | | Unit |
|--------------------------------|-------|----|------|-------|
| | Min. | | Max. | |
| Collector-emitter voltage (DC) | 0 | to | 50 | V |
| Base current (DC) | 0 | to | 15 | A |
| Temperature | -55 | to | 150 | deg C |

Simulation results are following.
 Explanatory notes — : simulated

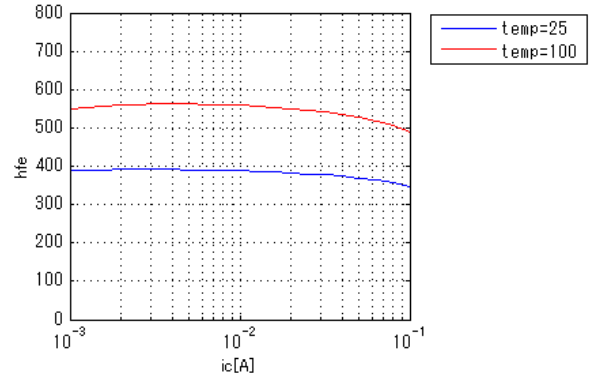
IcVce[ib]

Temp. = 25deg C



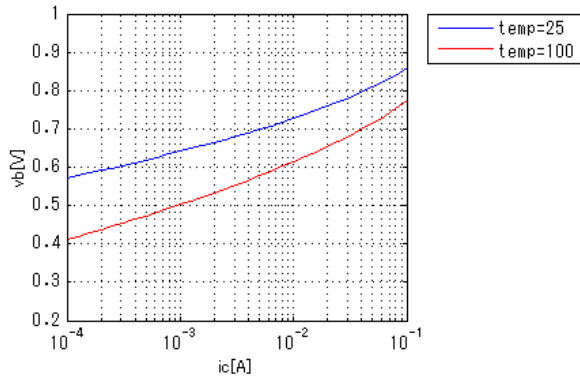
hFEIc[Temp]

Vce = 6V



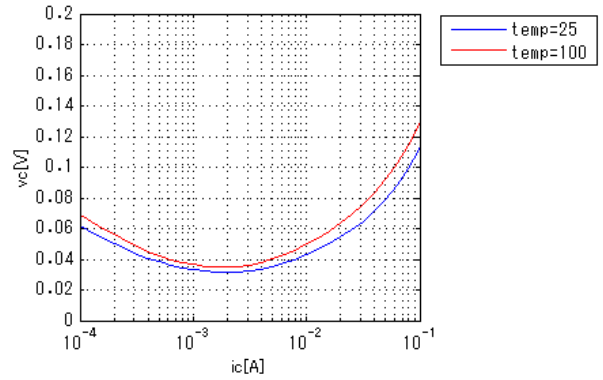
Vbe(sat)Ic[Temp]

IC/IB = 10



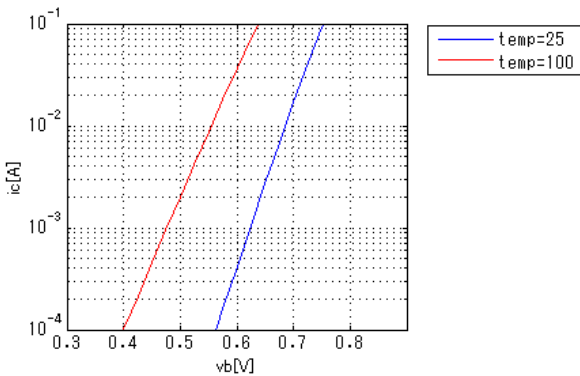
Vce(sat)Ic[Temp]

IC/IB = 10



IcVbe[Temp]

Vce = 6V



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