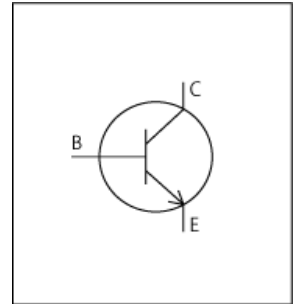


LTspice Model

NPN

Isahaya

2SC3052-T112-1F



Model Information

Model Mextram 504
Call Name MDC_2SC3052-T112-1F_LT
Pin Assign 1:B 2:E 3:C
File List Model Library MDC_2SC3052-T112-1F_LT01.lib
 Model Report MDC_2SC3052-T112-1F_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 2020/07
- Product name 2SC3052-T112-1F
- Company name Isahaya Electronics Corporation
- Characteristics $I_{cV_{be}[Temp]}$, $I_{cV_{ce}[ib]}$, $h_{FEI_{c}[Temp]}$, $V_{ce(sat)I_{c}[Temp]}$, $f_{T}I_{c}[V_{ce}]$, C_{ob}

Simulation Range

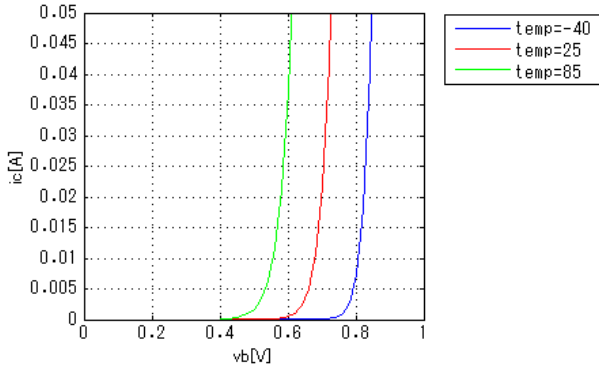
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

| Item | Range | | | Unit |
|--------------------------------|-------|----|------|-------|
| | Min. | | Max. | |
| Collector-emitter voltage (DC) | 0 | to | 50 | V |
| Collector current (DC) | 0 | to | 0.2 | A |
| Temperature | -55 | to | 150 | deg C |

Simulation results are following.
 Explanatory notes — : simulated

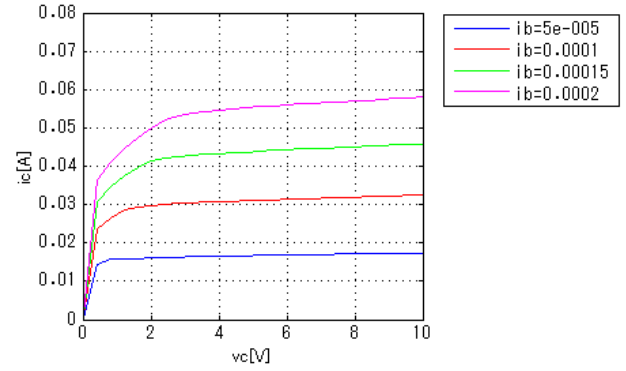
IcVbe[Temp]

Vce = 6V



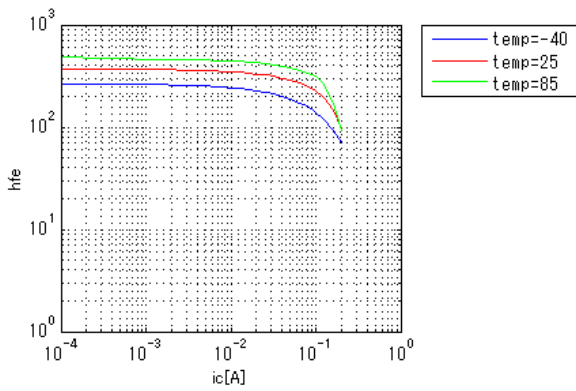
IcVce[ib]

Temp. = 25deg C



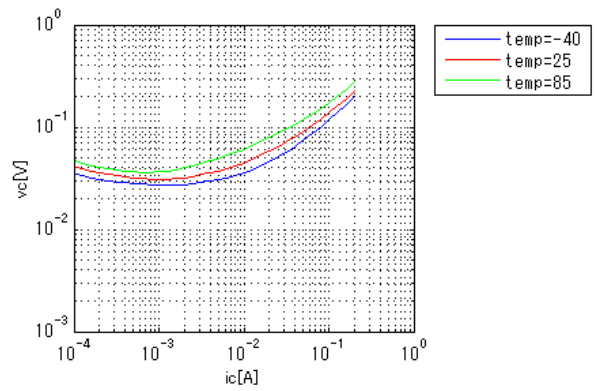
hFEIc[Temp]

Vce = 6V

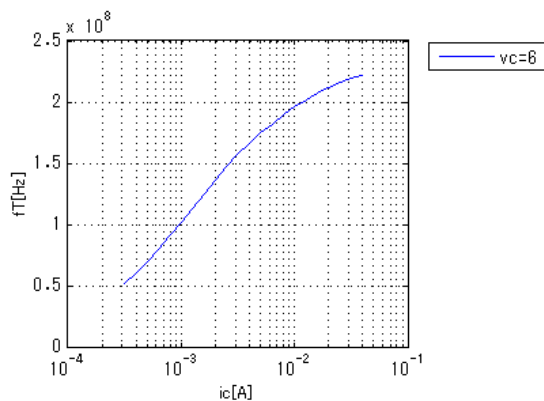


Vce(sat)Ic[Temp]

IC/IB = 10

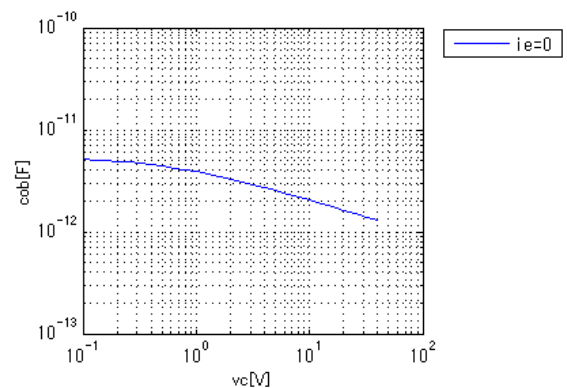


fT[Ic[Vce]]



Cob

Freq. = 1MHz



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