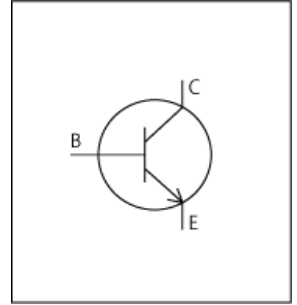


LTspice Model

NPN

SanKen

2SC4467



Model Information

Model Gummel-Poon model
Call Name MDC_2SC4467_LT
Pin Assign 1:B 2:C 3:E
File List Model Library MDC_2SC4467_LT01.lib
 Model Report MDC_2SC4467_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 None
- Product name 2SC4467
- Company name Sanken Electric Co., Ltd.
- Characteristics $I_{cVce}[ib]$, $V_{ceIb}[ic]$, $I_{cVbe}[Temp]$, $hFEIc[Temp]$, $fTIE[Vce]$, C_{ob} , $SwitchingIcc[Tname]$, $SwitchingWaveform$

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 | 120 | V |
| Collector current (DC) | 0 | to | 8 | A |
| Temperature | -55 | to | 150 | deg C |

BJT

○ : Implemented
 × : Not Implemented
 — : Not applicable

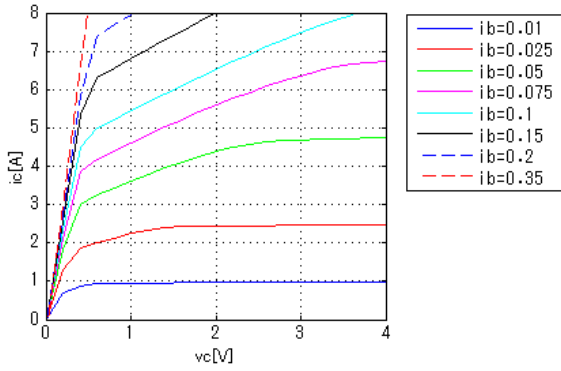
Model Functions Table
RANK=1

| Functions | RANK | Implemented |
|-----------------|------|-------------|
| IC-VBE(Temp) | 1 | ○ |
| IC-VCE-IB(Temp) | 1 | ○ |
| IC-hFE(Temp) | 1 | ○ |
| VCE(sat)-IC | 1 | ○ |
| VBE(sat)-IC | 1 | — |
| Capacitance | 1 | ○ |
| Transition | 1 | ○ |
| Switching | 1 | ○ |

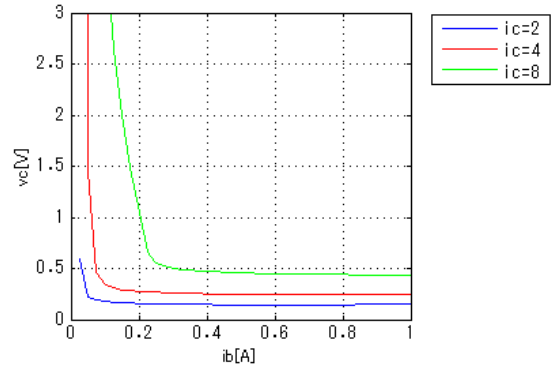
Simulation results are following.
 Explanatory notes — : simulated

IcVce[ib]

Temp = 25degC

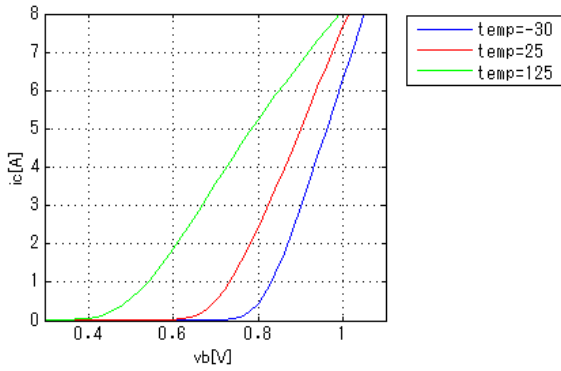


VceIb[Ic]



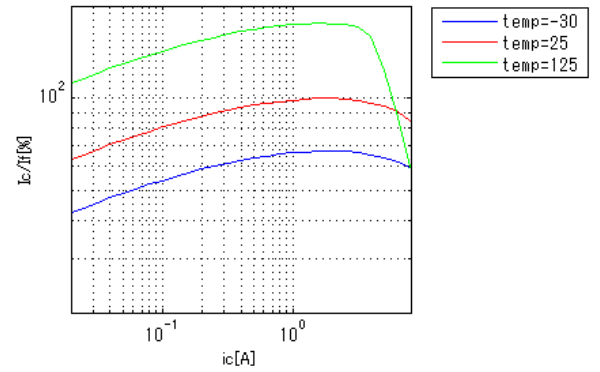
IcVbe[Temp]

Vce = 4V



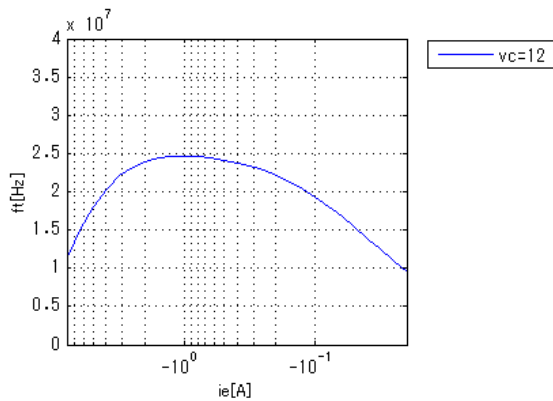
hFEIc[Temp]

Vce = 4V



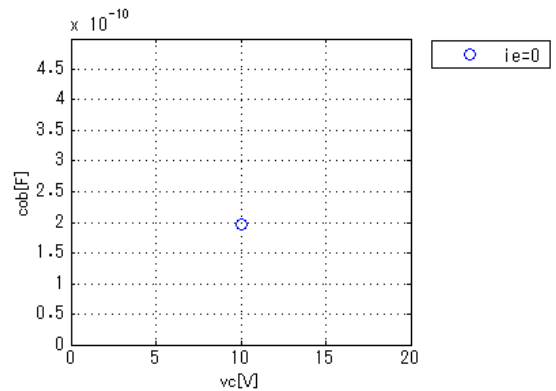
fTle[Vce]

Freq = 10000000Hz



Cob

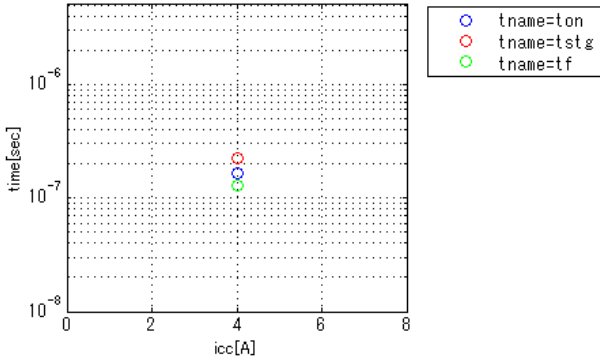
Freq = 10000000Hz



Simulation results are following.
 Explanatory notes — : simulated

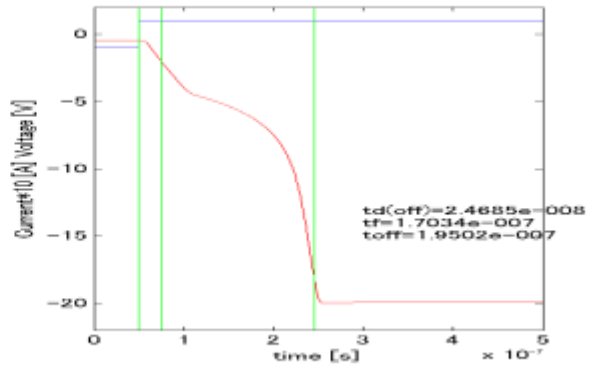
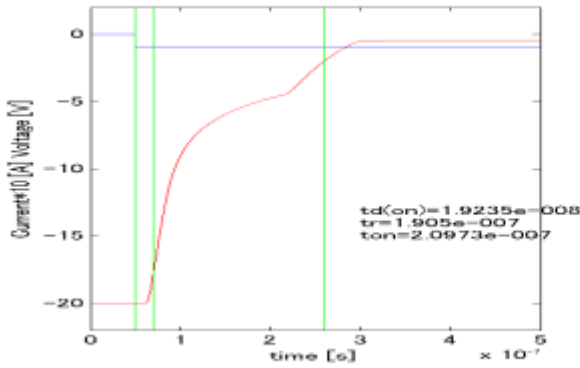
SwitchingIcc[Tname]

ic/ib = 10, vcc = 40V, Temp = 25degC



Switching Waveform (Blue : INPUT Red : OUTPUT)

icc = 4A, ic/ib = 10, vcc = 40V, Temp = 25degC



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