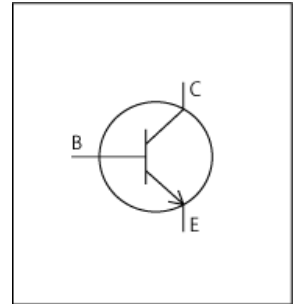


# PSpice Model

## NPN

### SanKen

### 2SC4467



### Model Information

**Model** Gummel-Poon model  
**Call Name** MDC\_2SC4467\_PS  
**Pin Assign** 1:B 2:C 3:E  
**File List** Model Library MDC\_2SC4467\_PS02.lib  
 Model Report MDC\_2SC4467\_PS.pdf (this file)

**Verified Simulator Version** PSpice version 17.2  
**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  $I_cV_{ce}[i_b], V_{ceI_b}[I_c], I_cV_{be}[Temp], h_{FE}I_c[Temp], f_{TIE}[V_{ce}], C_{ob},$   
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

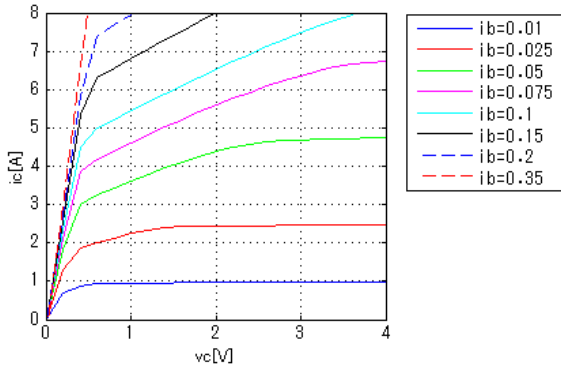
**Model Functions Table**
**RANK=1**

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	○

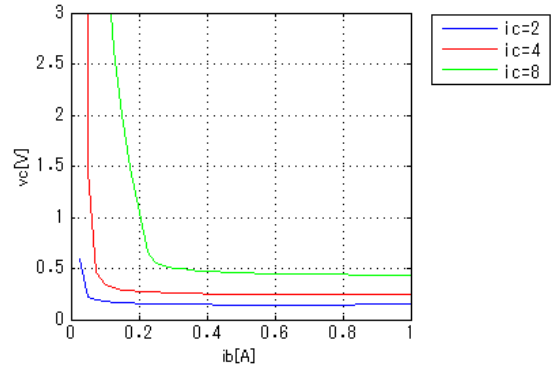
Simulation results are following.  
 Explanatory notes — : simulated

**IcVce[ib]**

Temp = 25degC

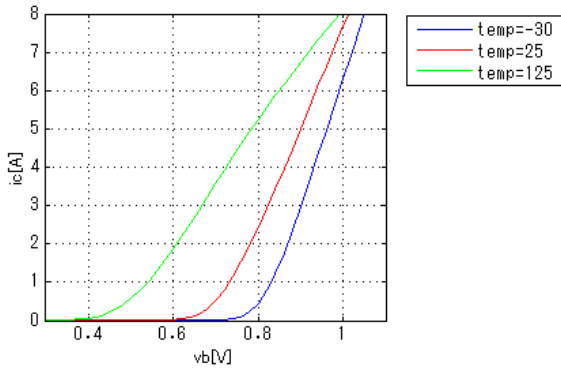


**VceIb[Ic]**



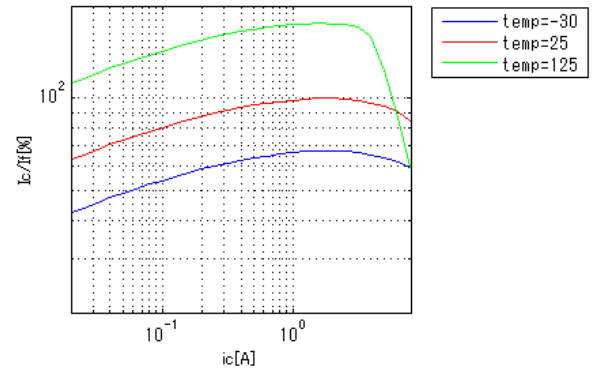
**IcVbe[Temp]**

Vce = 4V



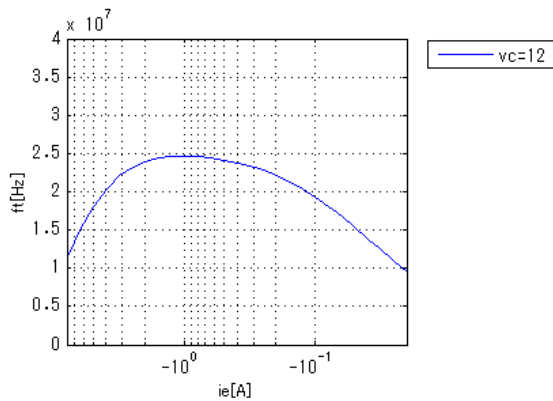
**hFEIc[Temp]**

Vce = 4V



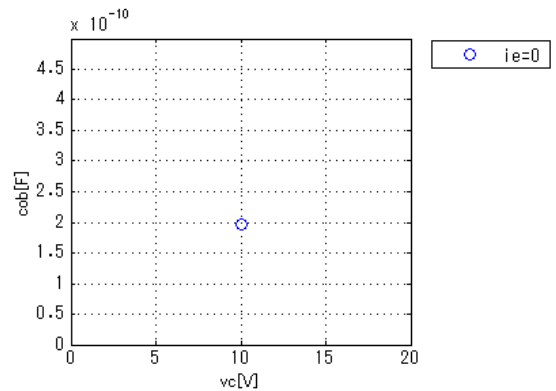
**fTle[Vce]**

Freq = 10000000Hz



**Cob**

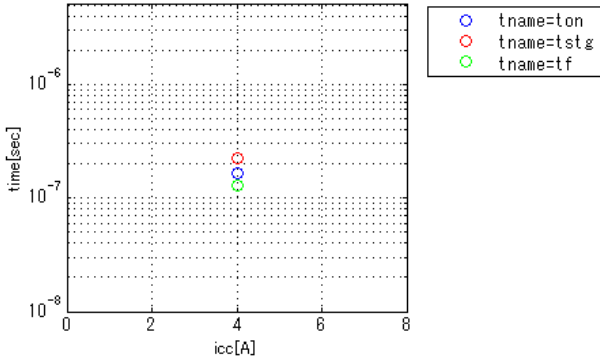
Freq = 10000000Hz



Simulation results are following.  
 Explanatory notes — : simulated

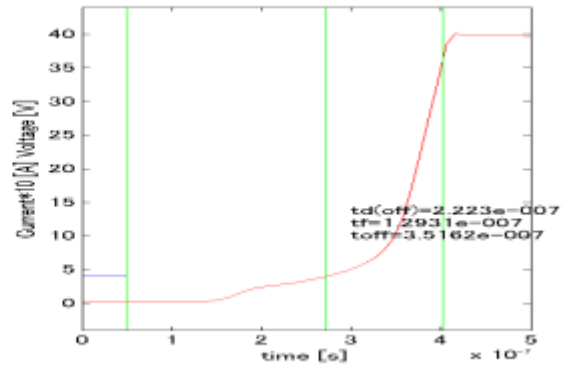
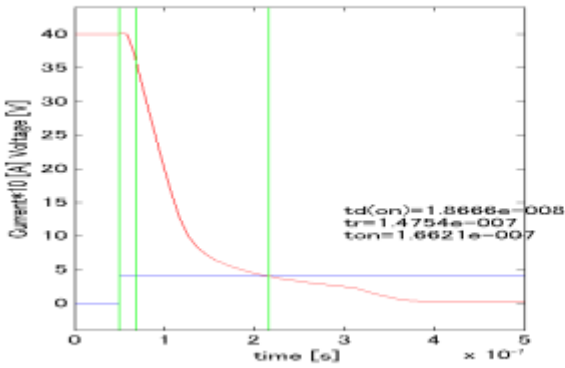
**SwitchingIcc[Tname]**

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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