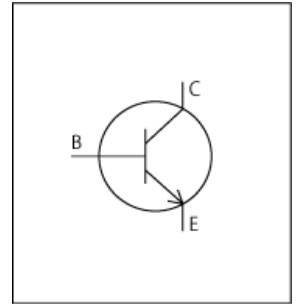


# PSpice Model

## NPN

### Isahaya

### 2SC3441



### Model Information

**Model** Gummel-Poon model  
**Call Name** MDC\_2SC3441\_PS  
**Pin Assign** 1:C 2:B 3:E  
**File List** Model Library MDC\_2SC3441\_PS02.lib  
 Model Report MDC\_2SC3441\_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 2017/5
- Product name 2SC3441
- Company name Isahaya Electronics Corporation
- Characteristics  $I_{cVce}[I_b], h_{FE}I_{c[Vce]}, I_{cVbe}[Temp], V_{ce(sat)}I_{c[hFE]}, f_T I_{c[Vce]}$

### Simulation Range

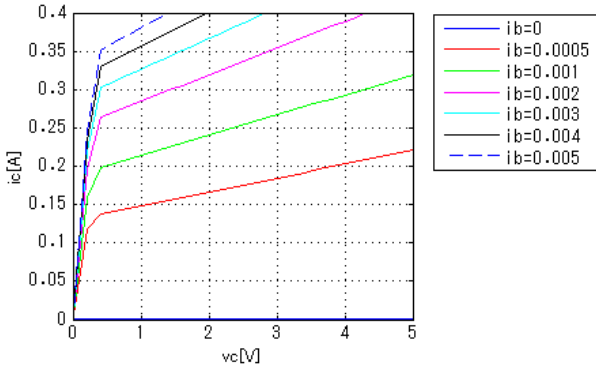
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	50	V
Base current (DC)	0	to	0.02	A
Temperature	-55	to	150	deg C

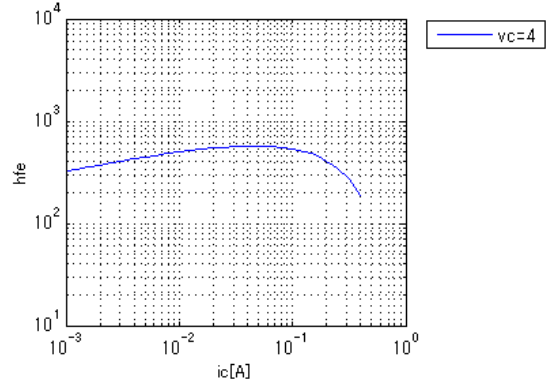
Simulation results are following.  
 Explanatory notes — : simulated

**IcVce[ib]**

Temp. = 25deg C

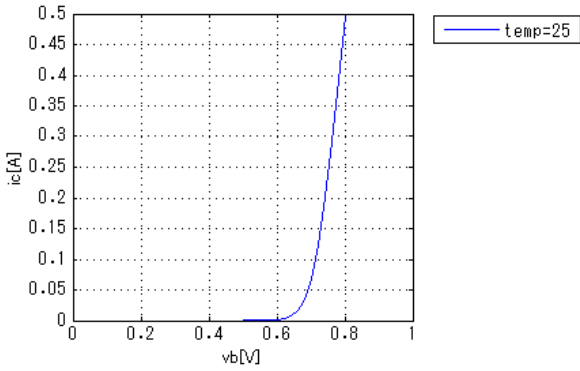


**hFEIc[Vce]**

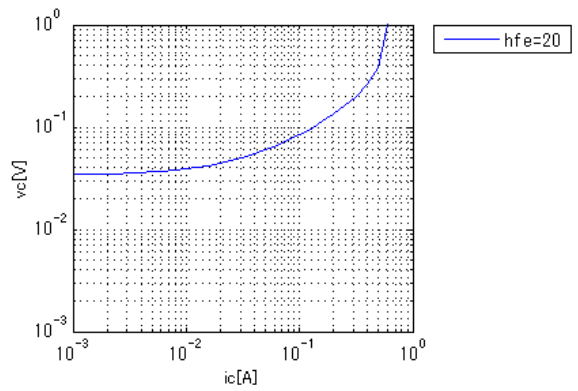


**IcVbe[Temp]**

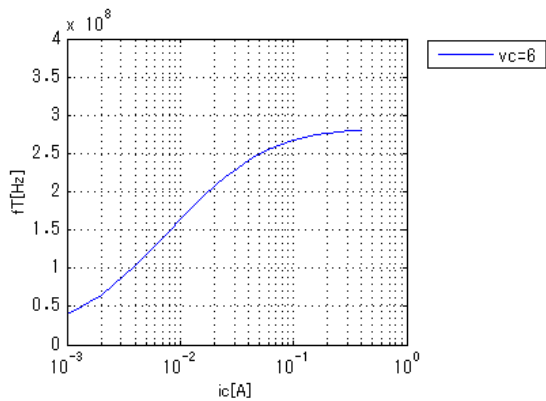
Vce = 4V



**Vce(sat)Ic[hFE]**



**fT Ic[Vce]**



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