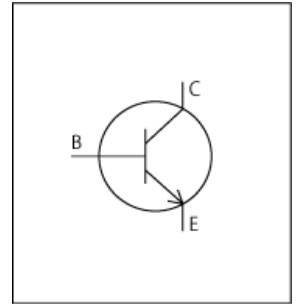


# PSpice Model

## NPN

### Comchip

### 2N3904A-G



### Model Information

**Model** Gummel-Poon model  
**Call Name** MDC\_2N3904A-G\_PS  
**Pin Assign** 1:C 2:B 3:E  
**File List** Model Library MDC\_2N3904A-G\_PS02.lib  
 Model Report MDC\_2N3904A-G\_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 REV:A
- Product name 2N3904A-G
- Company name Comchip Technology Co., Ltd.
- Characteristics IcVce[ib],hFEIc[Temp],IcVbe[Temp],Cib,Cob,ftIc[Vce]

### Simulation Range

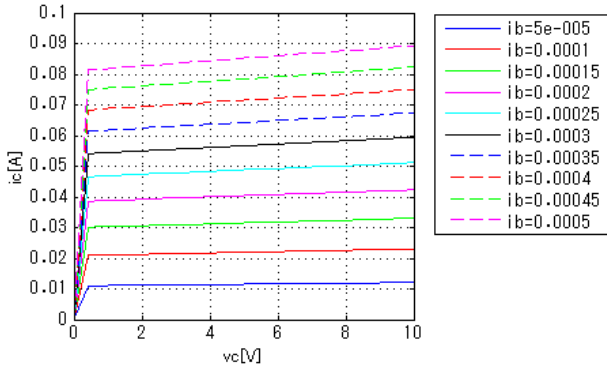
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	40	V
Temperature	-55	to	150	deg C

Simulation results are following.  
 Explanatory notes — : simulated

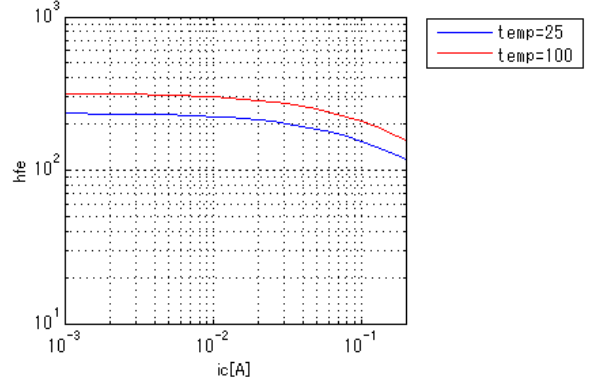
**IcVce[ib]**

Temp. = 25deg C



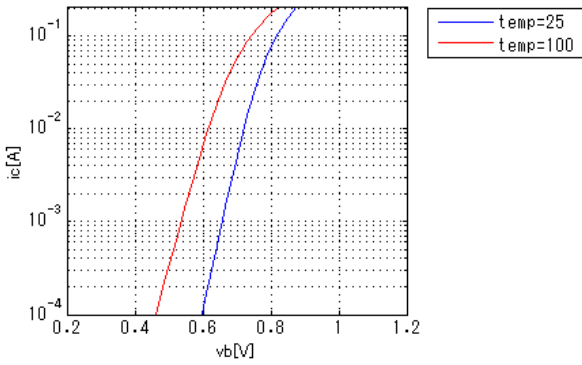
**hFEIc[Temp]**

Vce = 1V



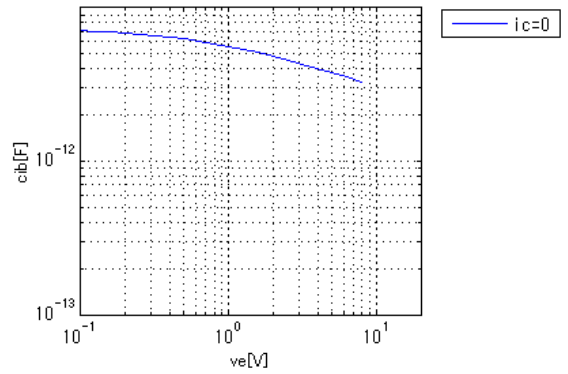
**IcVbe[Temp]**

Vce = 5V



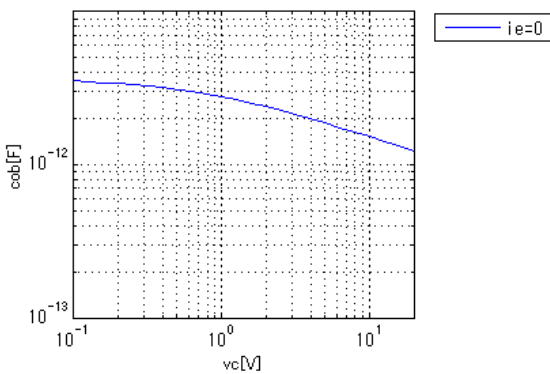
**Cib**

Freq. = 1MHz

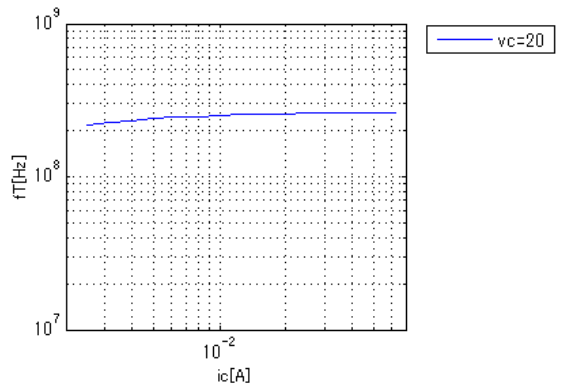


**Cob**

Freq. = 1MHz



**fT Ic [Vce]**



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