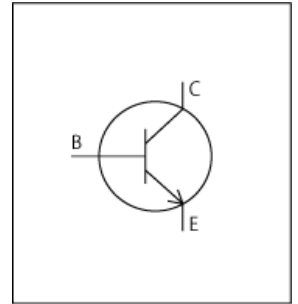


PSpice Model

NPN

Nexperia

BC847C



Model Information

Model Gummel-Poon model
Call Name MDC_BC847C_PS
Pin Assign 1:B 2:E 3:C
File List Model Library MDC_BC847C_PS01.lib
 Model Report MDC_BC847C_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 2019/10/24 Rev.12
- Product name BC847C
- Company name Nexperia B.V.
- Characteristics $hFE I_C [Temp]$, $I_C V_{BE} [Temp]$, $V_{CE(sat)} I_C [Temp]$, $V_{BE(sat)} I_C [Temp]$

Simulation Range

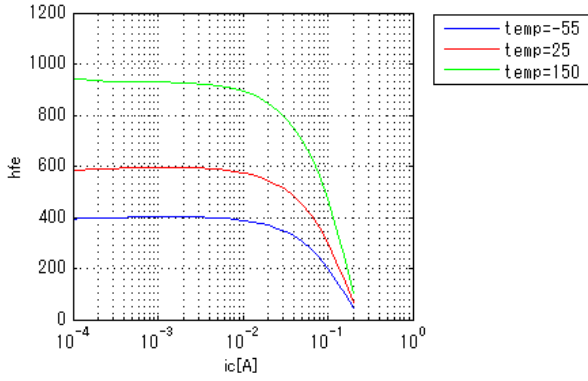
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	45	V
Base current (DC)	0	to	10	A
Temperature	-65	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

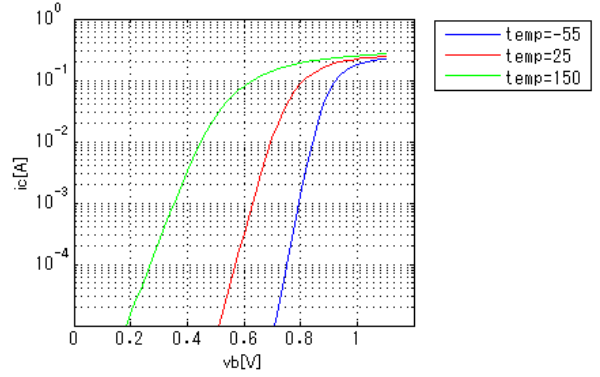
hFEIc[Temp]

Vce = 5V



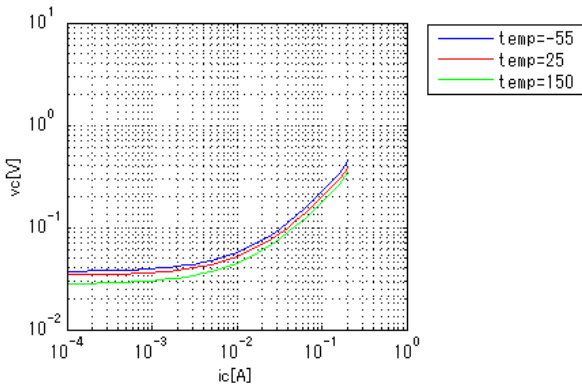
IcVbe[Temp]

Vce = 5V



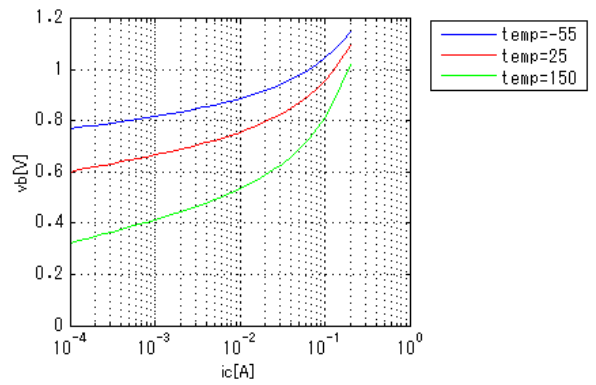
Vce(sat)Ic[Temp]

IC/IB = 20



Vbe(sat)Ic[Temp]

IC/IB = 10



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MoDeCH Inc.

Head Office

Location: Taiju-Seimei-Hachioji Bldg., 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:model-on-support@modech.co.jp

URL:<http://www.modech.com/en/>