

PSpice Model

PNP

RENESAS

2SA1646



Model Information

Model Mextram model
Call Name MDC_2SA1646_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_2SA1646_PS01.lib
 Model Report MDC_2SA1646_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 Unknown
- Product name 2SA1646
- Company name Renesas Electronics Corporation
- Characteristics $I_c V_{ce}[ib], hFE I_c[Temp], V_{ce}(sat) I_c[Temp], V_{be}(sat) I_c[Temp], f_T I_c[V_{ce}], C_{ob}$

Simulation Range

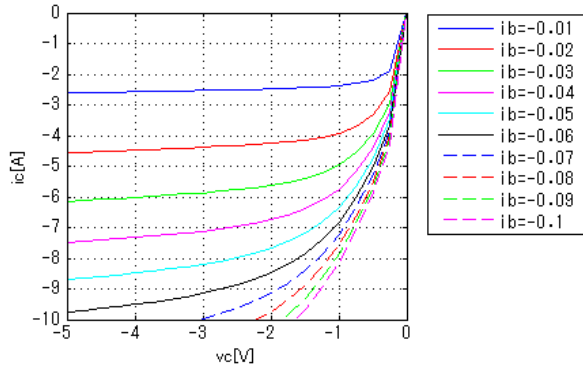
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-100	V
Base current (DC)	0	to	-6	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

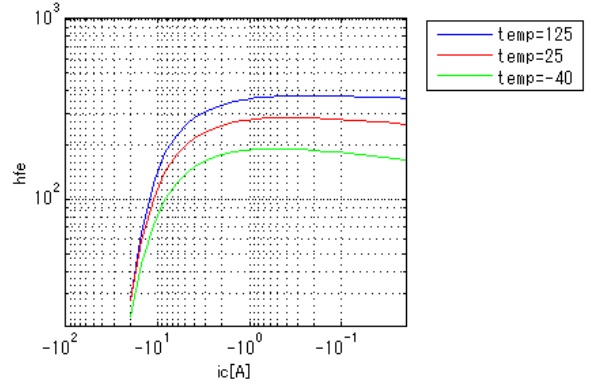
IcVce[ib]

Temp. = 25deg C



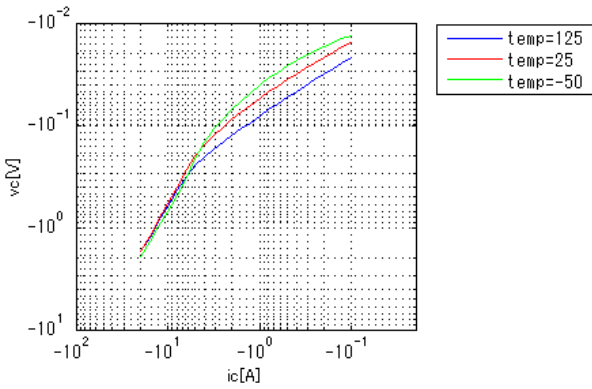
hFEIc[Temp]

Vce = -2V



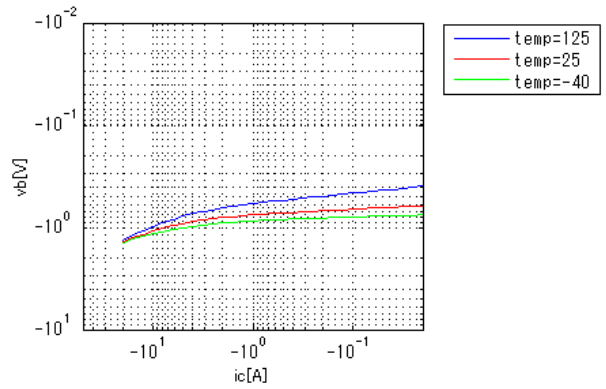
Vce(sat)Ic[Temp]

IC/IB = 20

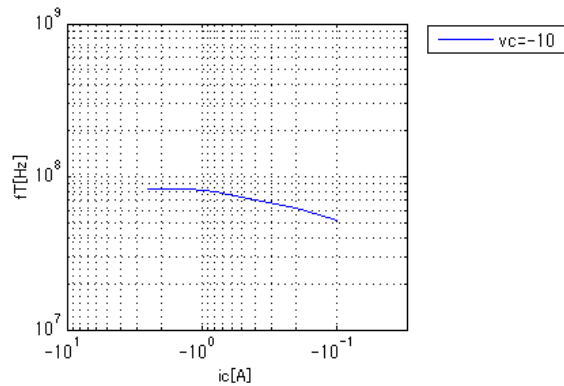


Vbe(sat)Ic[Temp]

IC/IB = 20

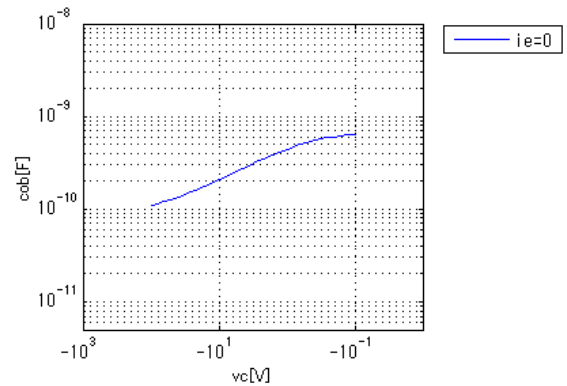


fT[Ic[Vce]]



Cob

Freq. = 1MHz



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MoDeCH Inc.

Head Office

Location: Mitsuseimei 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/>