

PSpice Model

BRT (Bias Resistor Transistor)

Isahaya Electronics Corporation

RT1P431M-T111-1

Model Information

Model A macro model based on Gummel-Poon model
Call Name MDC_RT1P431M-T111-1_PS
Pin Assign 1:B 2:E 3:C
File List Model Library MDC_RT1P431M-T111-1_PS01.lib
 Model Report MDC_RT1P431M-T111-1_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 Unknown
- Product name RT1P431M-T111-1
- Company name Isahaya Electronics Corporation
- Characteristics $I_{cV}[OFF], I_{cV}[ON], h_{FE}[Temp], V_{ce(sat)}[Temp]$

Simulation Range

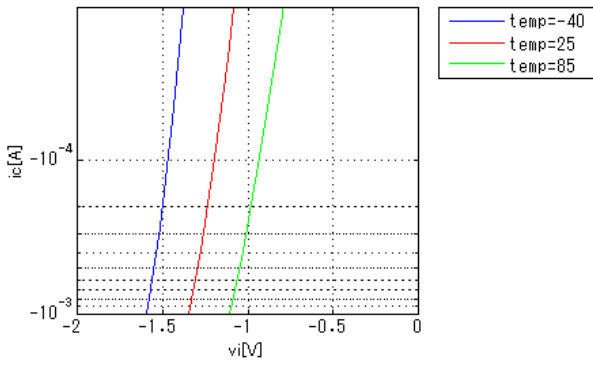
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-50	V
Base current (DC)	0	to	-5	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

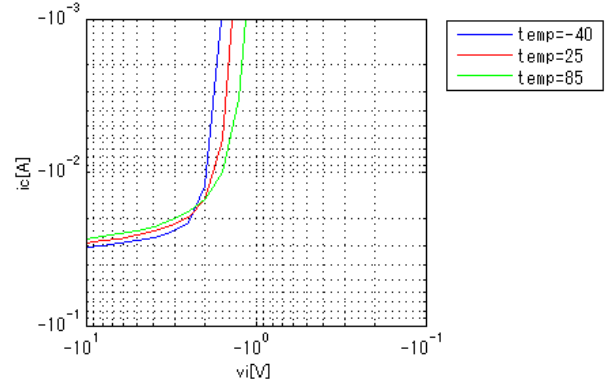
IcVi[OFF]

Vce = -5V



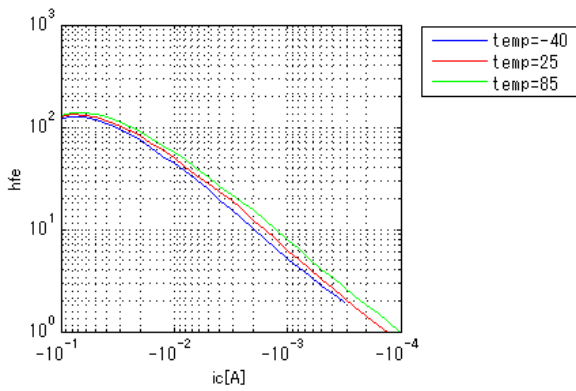
IcVi[ON]

Vce = -0.2V



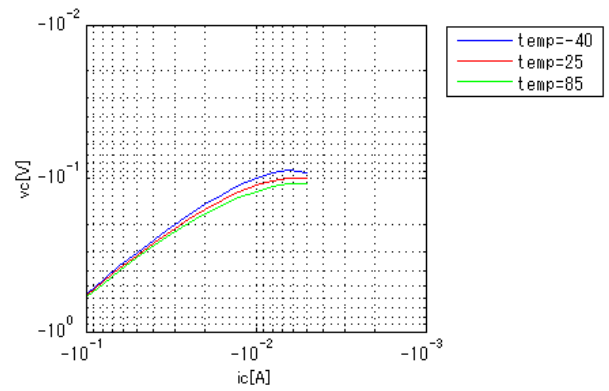
hFEIc[Temp]

Vce = -5V



Vce(sat)Ic[Temp]

IC/IB = 20



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MoDeCH Inc.

Head Office

Location: 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/>