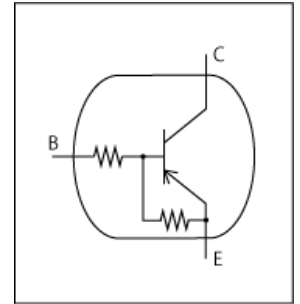


PSpice Model

BRT (Bias Resistor Transistor)

ROHM

DTA144E



Model Information

Model A macro model based on Gummel-Poon model
Call Name MDC_DTA144E_PS
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_DTA144E_PS02.lib
 Model Report MDC_DTA144E_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 DTA144E
- Company name ROHM Co., Ltd.
- Characteristics $I_c V_{ce}[I_i], I_c V_i[OFF], I_c V_i[ON], hFE I_c[Temp], V_{ce}(sat) I_c[Temp]$

Simulation Range

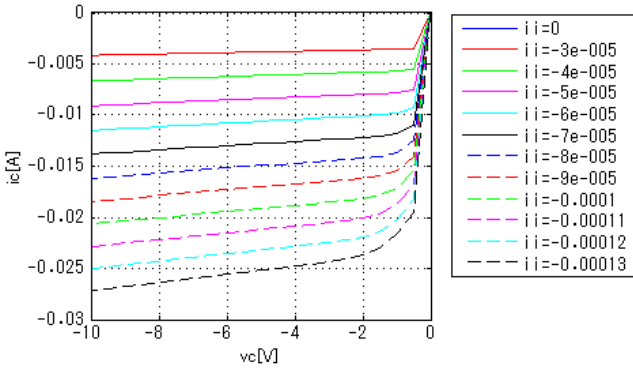
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

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

Simulation results are following.
 Explanatory notes — : simulated

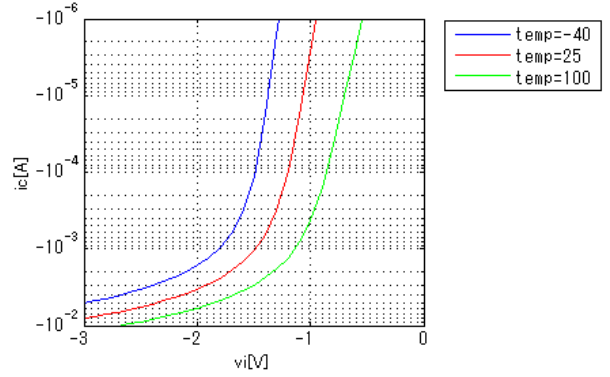
IcVce[li]

Temp. = 25deg C



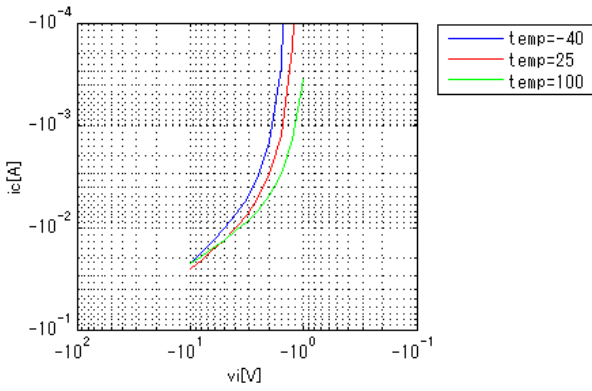
IcVi[OFF]

Vce = -5V



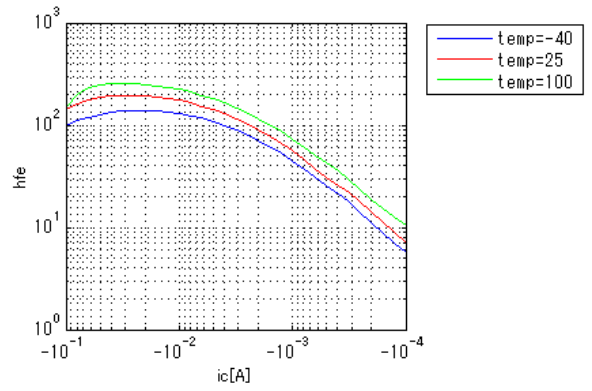
IcVi[ON]

Vce = -0.3V



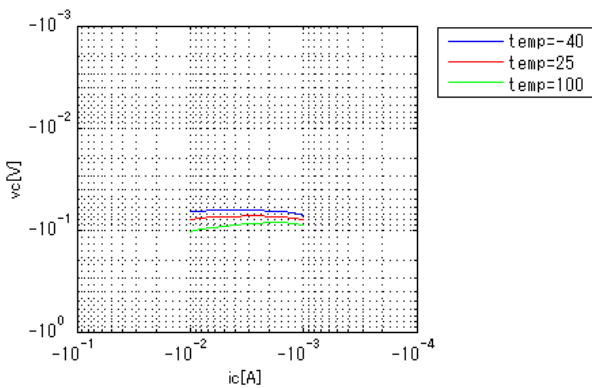
hFEIc[Temp]

Vce = -5V



Vce(sat)Ic[Temp]

IC/IB = 20



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