

LTspice Model

NPN

Nexperia

BC847



Model Information

Model Mextram model
Call Name MDC_BC847_LT
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_BC847_LT01.lib
 Model Report MDC_BC847_LT.pdf (this file)

Verified Simulator Version LTspice version XVII
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev. 9 - 23 September 2014
- Product name BC847
- 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

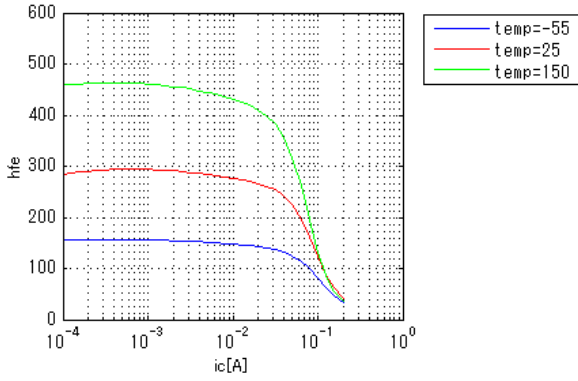
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

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

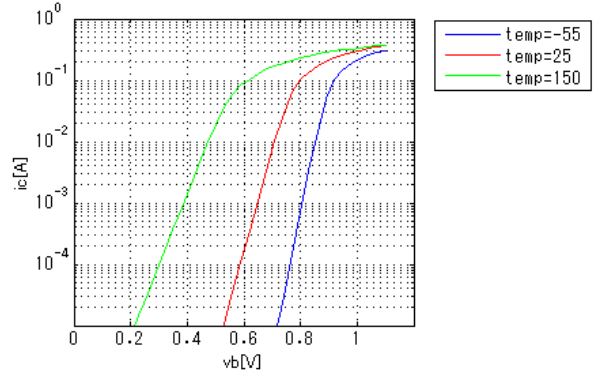
hFEIc[Temp]

Vce = 5V



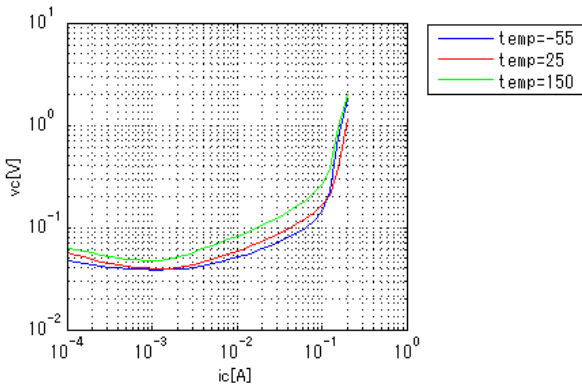
IcVbe[Temp]

Vce = 5V



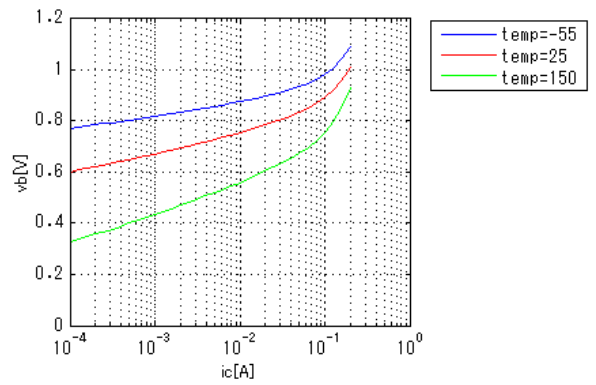
Vce(sat)Ic[Temp]

IC/IB = 20



Vbe(sat)Ic[Temp]

IC/IB = 10



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