

LTspice Model

NPN

KEC

KTD1863



Model Information

Model Gummel-Poon model
Call Name MDC_KTD1863_LT
Pin Assign 1:C 2:B 3:E
File List Model Library MDC_KTD1863_LT01.lib
 Model Report MDC_KTD1863_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 Revision No : 1
- Product name KTD1863
- Company name KEC Corporation
- Characteristics $I_c V_{be}[Temp]$, $I_c V_{ce}[ib]$, $hFE I_c[V_{ce}]$, $V_{ce}(sat) I_c[hFE]$, $fT I_c[V_{ce}]$, C_{ob}

Simulation Range

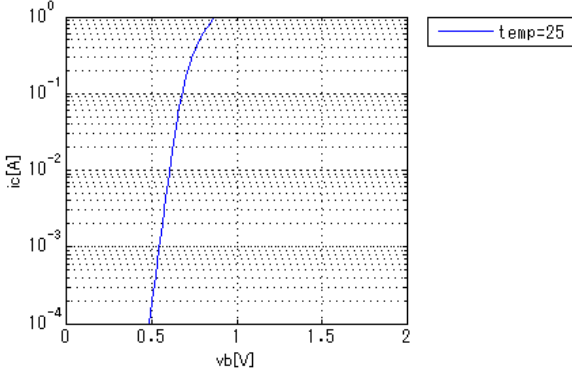
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	80	V
Base current (DC)	0	to	0.1	A
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

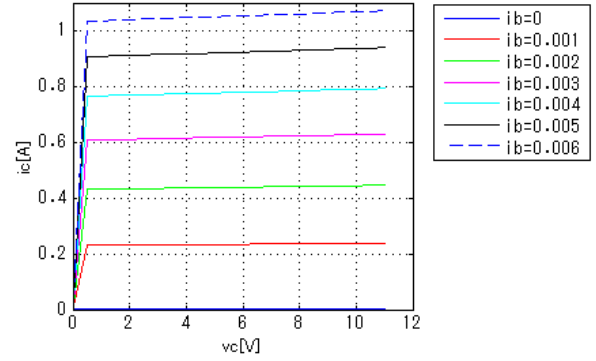
IcVbe[Temp]

Vce = 5V

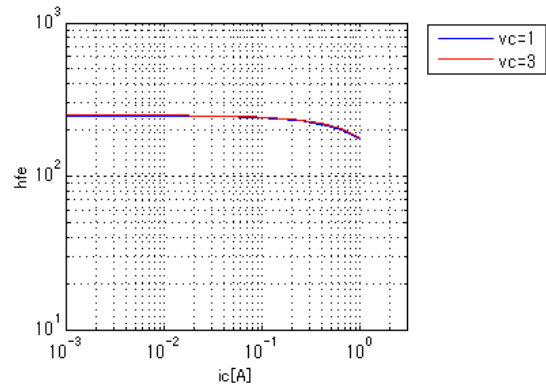


IcVce[ib]

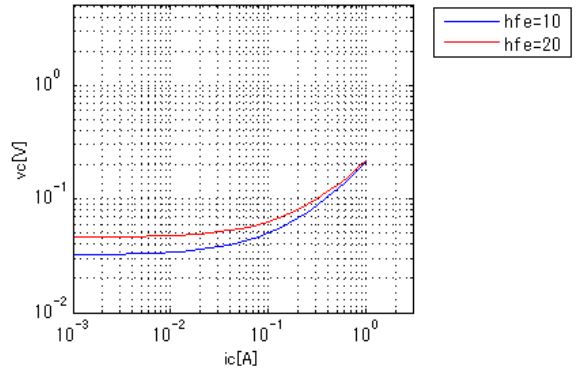
Temp. = 25deg C



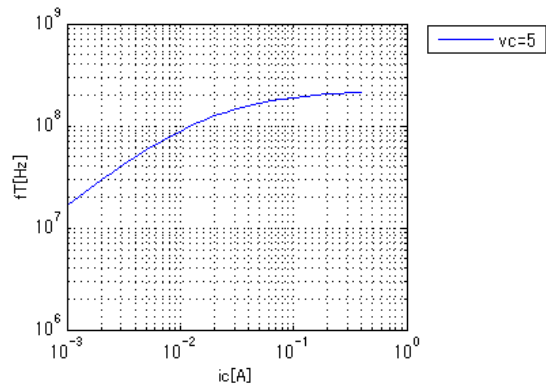
hFEIc[Vce]



Vce(sat)Ic[hFE]

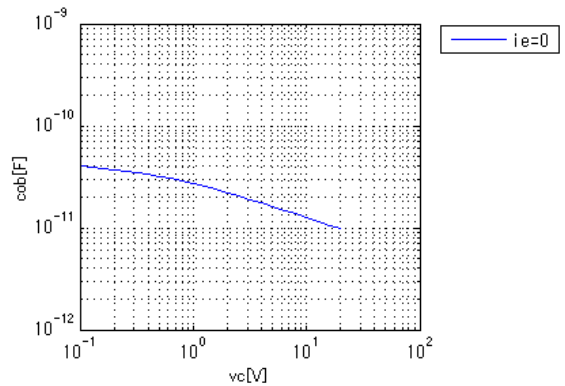


fT[Ic[Vce]]



Cob

Freq. = 1MHz



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