

PSpice Model

Photocoupler IC Output

Broadcom

HCPL-063N-500E

Model Information

Model An original macro model
Call Name MDC_HCPL-063N-500E_PS
Pin Assign 1:Anode 3:Cathode 4:GND 5:VO 6:VCC
File List Model Library MDC_HCPL-063N-500E_PS01.lib
 Model Report MDC_HCPL-063N-500E_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 HCPL-063N-500E
- Company name Broadcom Ltd.
- Characteristics IfVf[Temp],IfIhTemp[Vcc],IohTemp[Vcc],SwitchingTemp,Swit chingIf

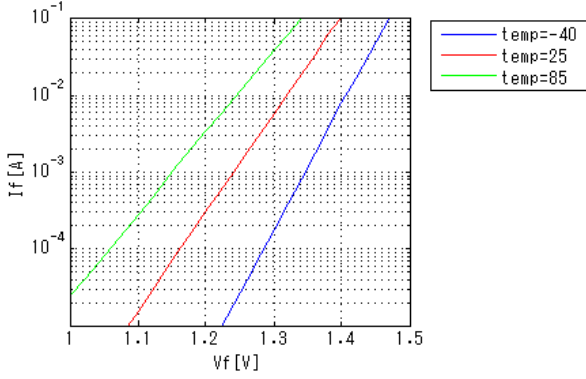
Simulation Range

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

Item	Range			Unit
	Min.		Max.	
Temperature	-40	to	85	deg C

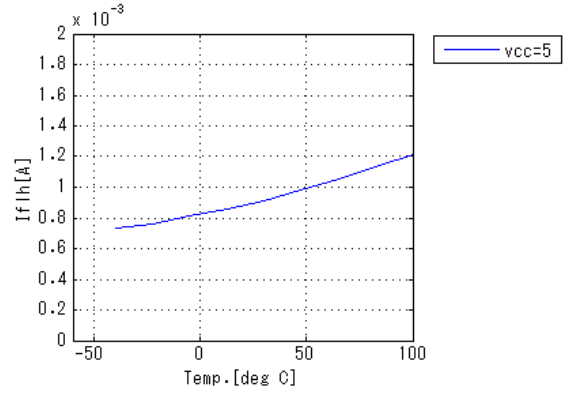
Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]



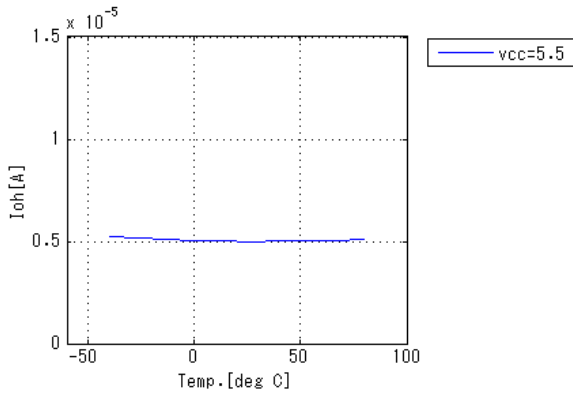
IfIhTemp[Vcc]

$V_o = 0.6V$



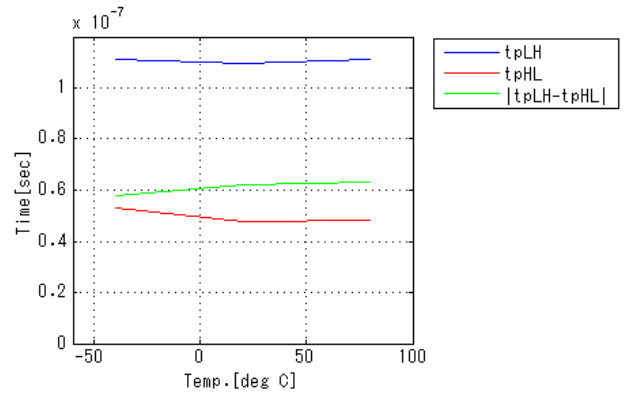
IohTemp[Vcc]

$V_f = 0.8V, V_o = 5.5V, R_l = 20000ohm$



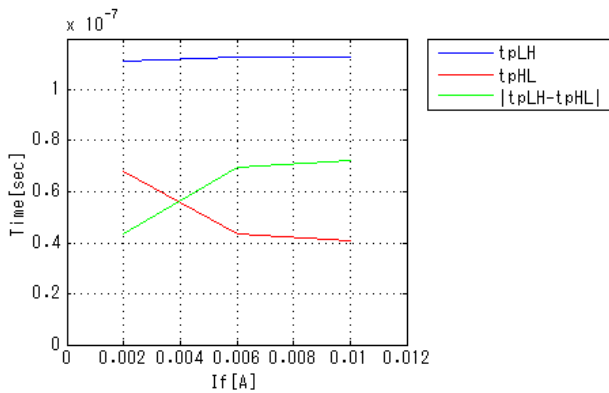
SwitchingTemp

Freq. = 1000000Hz, Duty = 50%, $I_f = 0.0035A, V_{cc} = 5V$



SwitchingIf

Freq. = 1000000Hz, Duty = 50%, $V_{cc} = 5V$



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