

PSpice Model Photocoupler IC Output TOSHIBA TLP104

Model Information

Model An original macro model
Call Name MDC_TLP104_PS
Pin Assign 1:Anode 3:Cathode 4:GND 5:VO 6:VCC
File List Model Library MDC_TLP104_PS01.lib
 Model Report MDC_TLP104_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 2017-05-25
- Product name TLP104
- Company name Toshiba Corporation
- Characteristics IfVf[Temp],IfhI[Temp][Vcc],Iccl[Temp][Vcc],Icch[Temp][Vcc],IohTemp[Temp][Vcc],SwitchingTemp,SwitchingIf,SwitchingVcc

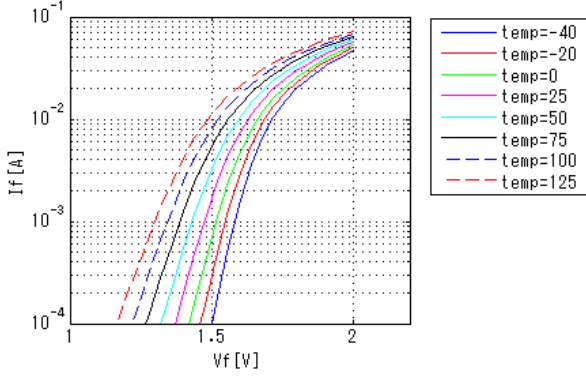
Simulation Range

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	-55	to	125	deg C

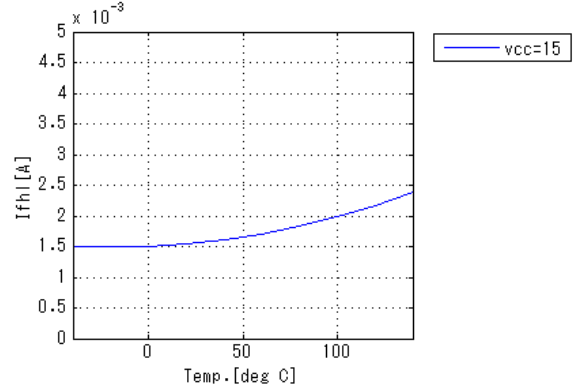
Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]



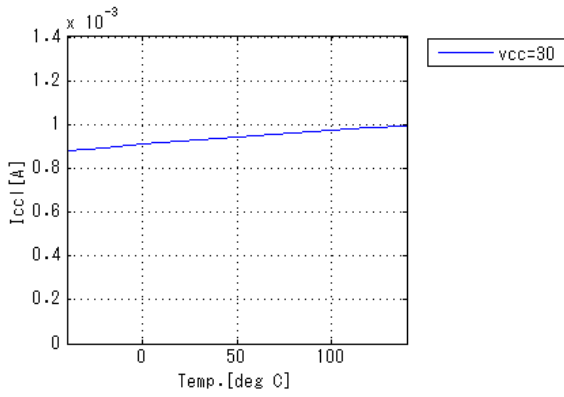
IfhITemp[Vcc]

Io = 0.00075A



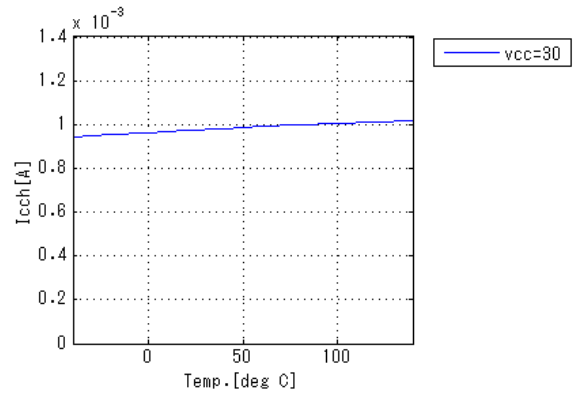
IccITemp[Vcc]

If = 0.01A



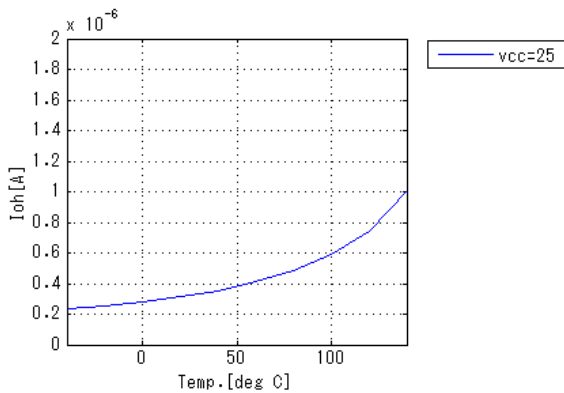
IcchTemp[Vcc]

If = 0A



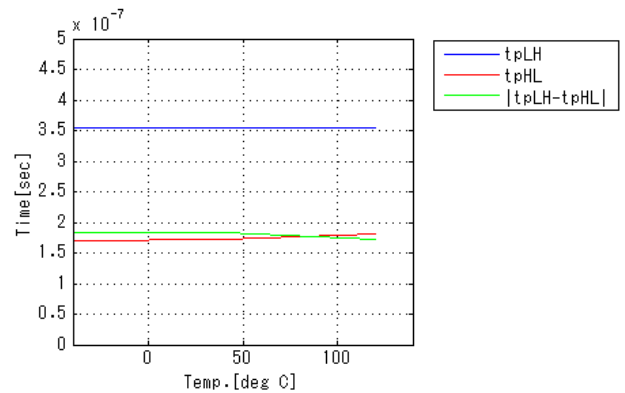
IohTemp[Vcc]

Vf = 0.8V, Vo = 30V, RI = 20000ohm



SwitchingTemp

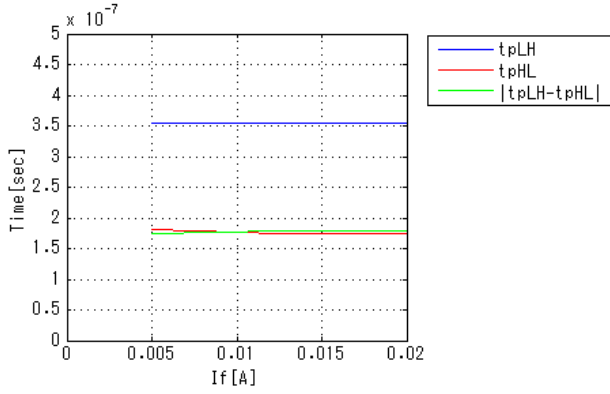
Freq. = 10000Hz, Duty = 10%, If = 0.01A, Vcc = 15V



Simulation results are following.
 Explanatory notes — : simulated

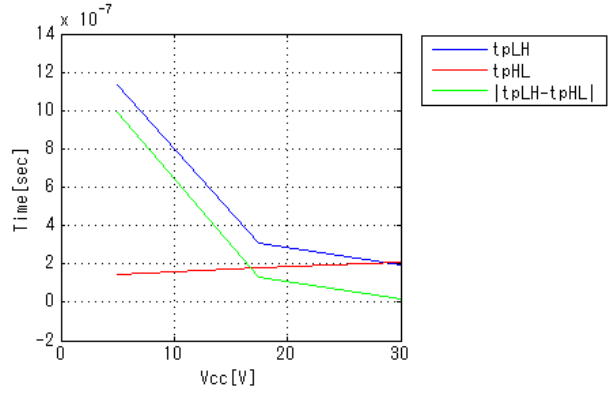
SwitchingIf

Freq. = 10000Hz, Duty = 10%, Vcc = 15V



SwitchingVcc

Freq. = 10000Hz, Duty = 10%, If = 0.01A



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