

PSpice Model

Photocoupler IC Output

TOSHIBA

TLP2710

Model Information

Model An original macro model
Call Name MDC_TLP2710_PS
Pin Assign 1:Anode 3:Cathode 4:GND 5:VO 6:VCC
File List Model Library MDC_TLP2710_PS01.lib
 Model Report MDC_TLP2710_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 Rev.4.0
- Product name TLP2710
- Company name Toshiba Corporation
- Characteristics IfVf[Temp],IcclTemp[Vcc],IcchTemp[Vcc],IflhTemp[Vcc],SwitchingTemp,SwitchingVcc,SwitchingIf

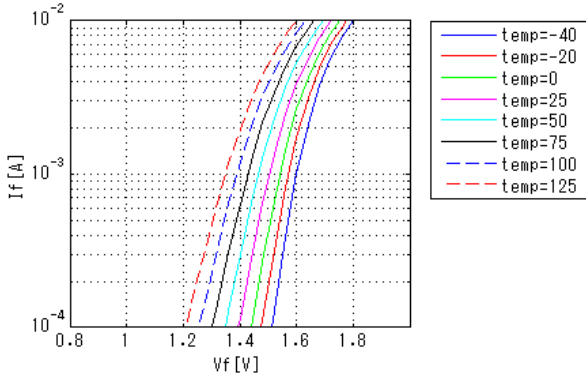
Simulation Range

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

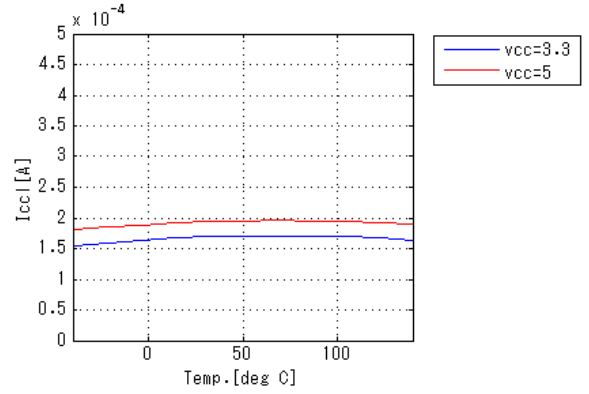
Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]



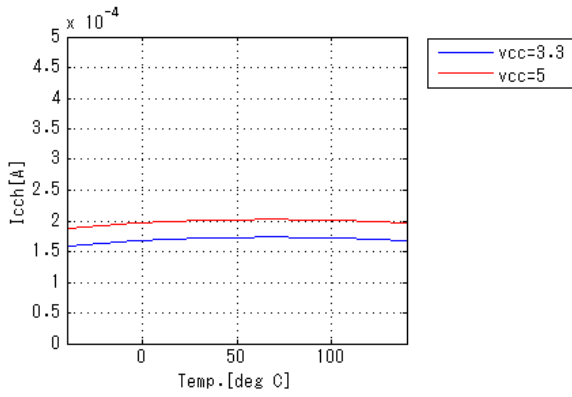
IccI[Temp[Vcc]]

If = 0A



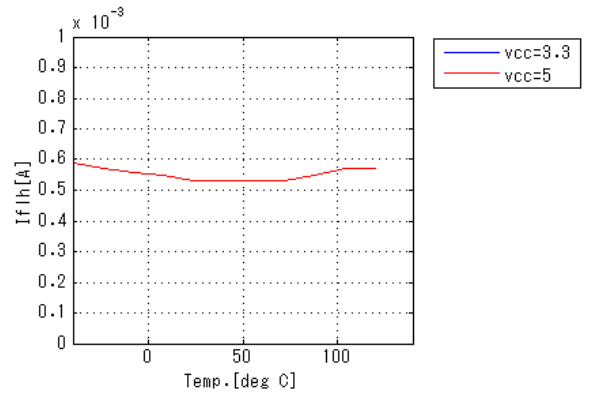
IcchTemp[Vcc]

If = 0.002A



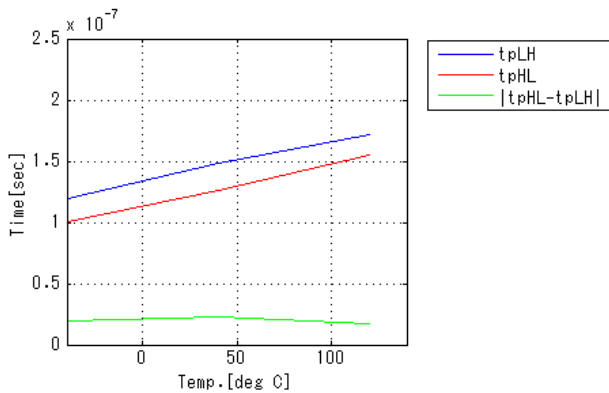
IfIhTemp[Vcc]

Io = -0.0032A



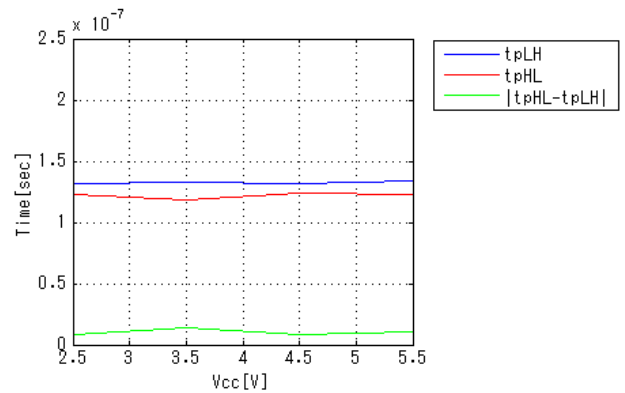
SwitchingTemp

Freq. = 250000Hz, Duty = 50%, If = 0.002A, Vcc = 5V



SwitchingVcc

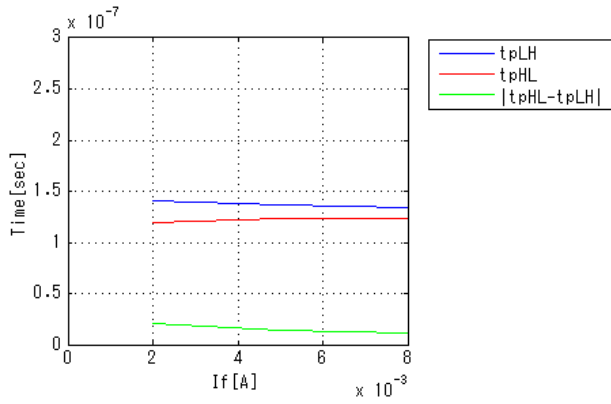
Freq. = 250000Hz, Duty = 50%, Rt = 820ohm, Vin = 3.3V



Simulation results are following.
 Explanatory notes — : simulated

SwitchingIf

Freq. = 250000Hz, Duty = 50%, Vcc = 5V



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