

PSpice Model

Photocoupler IC Output

TOSHIBA

TLP2358

Model Information

Model An original macro model
Call Name MDC_TLP2358_PS
Pin Assign 1:Anode 3:Cathode 4:GND 5:VO 6:VCC
File List Model Library MDC_TLP2358_PS01.lib
 Model Report MDC_TLP2358_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 5.0
- Product name TLP2358
- Company name Toshiba Corporation
- Characteristics IfVf[Temp], IfhI[Temp[Vcc],Iccl[Temp[Vcc],Icch[Temp[Vcc],SwitchingIf,SwitchingVcc,SwitchingTemp,losI[Temp[Vcc],loshTemp[Vcc]

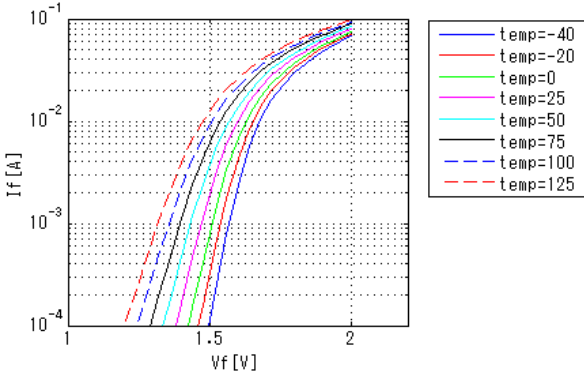
Simulation Range

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

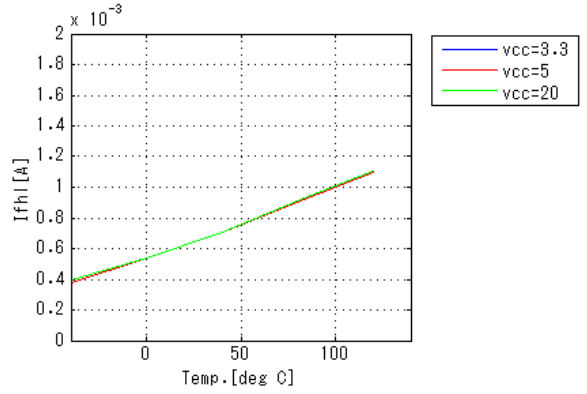
Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]



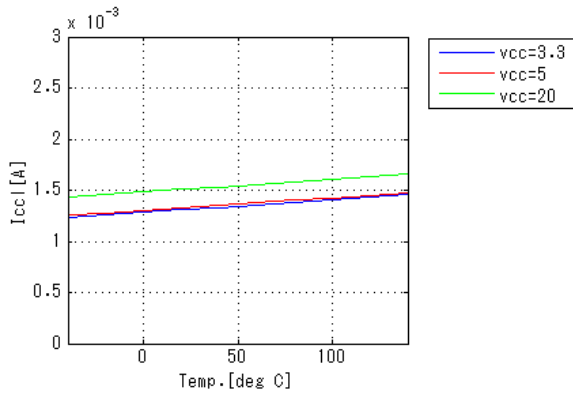
IfhI[Temp][Vcc]

$I_o = 0.035A$



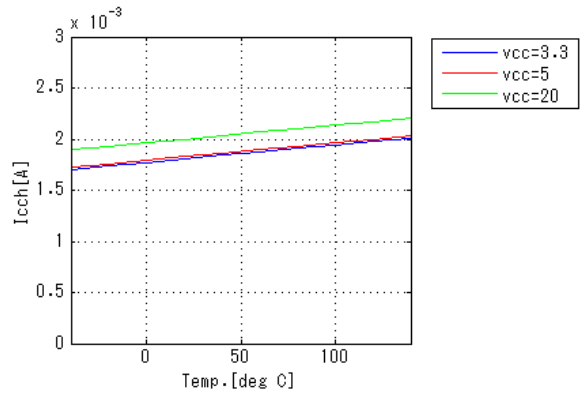
IccI[Temp][Vcc]

$I_f = 0.005A$



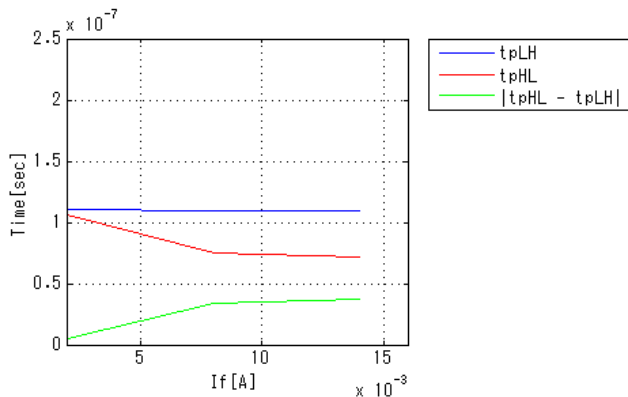
Icch[Temp][Vcc]

$I_f = 0A$



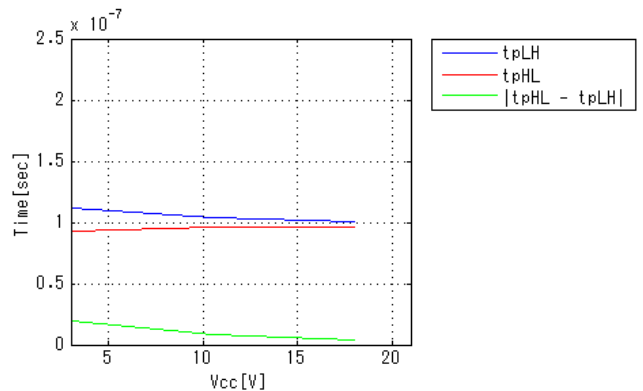
SwitchingIf

Freq. = 50000Hz, Duty = 50%, Vcc = 3.3V



SwitchingVcc

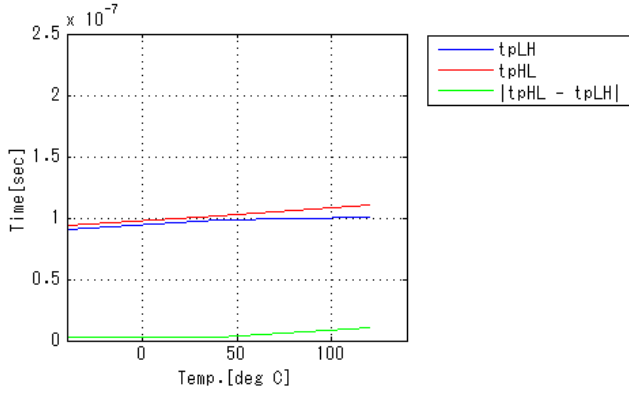
Freq. = 50000Hz, Duty = 50%, $I_f = 0.003A$



Simulation results are following.
 Explanatory notes — : simulated

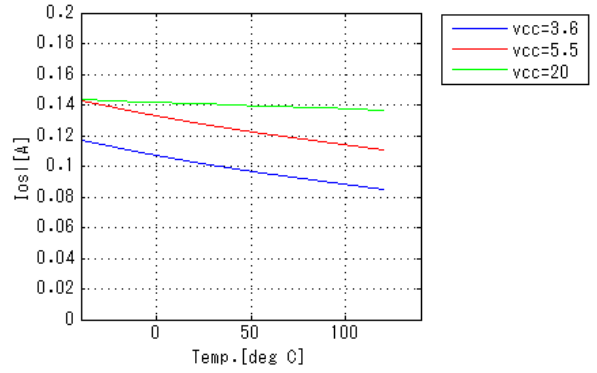
SwitchingTemp

Freq. = 50000Hz, Duty = 50%, If = 0.003A, Vcc = 15V



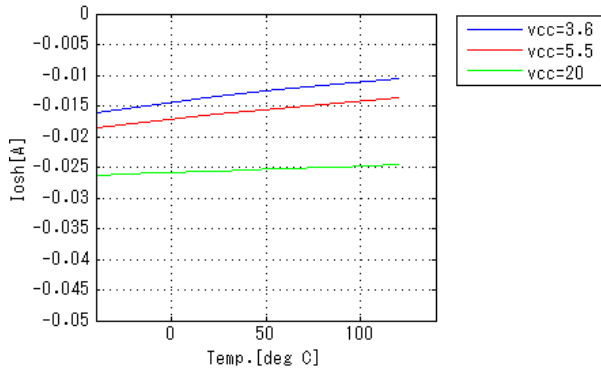
IosITemp[Vcc]

If = 0.005A



IoshTemp[Vcc]

If = 0A



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