

# PSpice Model Photocoupler Tr. Output ON FODM2705

## Model Information

**Model** An original macro model  
**Call Name** MDC\_FODM2705\_PS  
**Pin Assign** 1:Anode(Cathode) 2:Cathode(Anode) 3:Emitter 4:Collector  
**File List** Model Library MDC\_FODM2705\_PS01.lib  
 Model Report MDC\_FODM2705\_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 1.7
- Product name FODM2705
- Company name ON Semiconductor.
- Characteristics IfVf[Temp],IcVce[If],IcIf[Vce],hFEIf[Vce],IcTemp[If],Switching Time,SwitchingTime2,SwitchingTime3

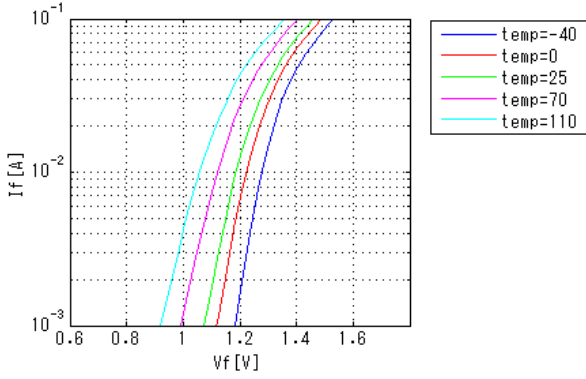
## Simulation Range

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

Item	Range			Unit
	Min.		Max.	
Forward current (DC)	0	to	0.05	A
Collector-emitter voltage (DC)	0	to	40	V
Temperature	-40	to	125	deg C

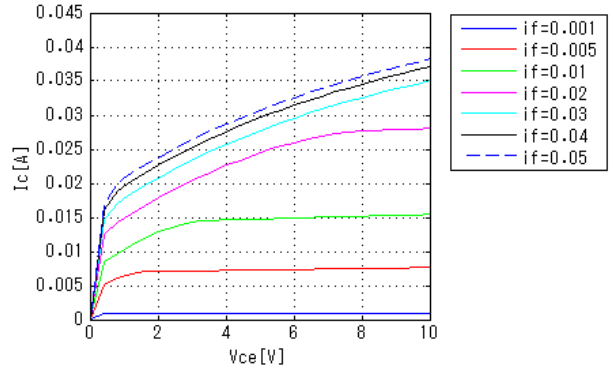
Simulation results are following.  
 Explanatory notes — : simulated

**IfVf[Temp]**



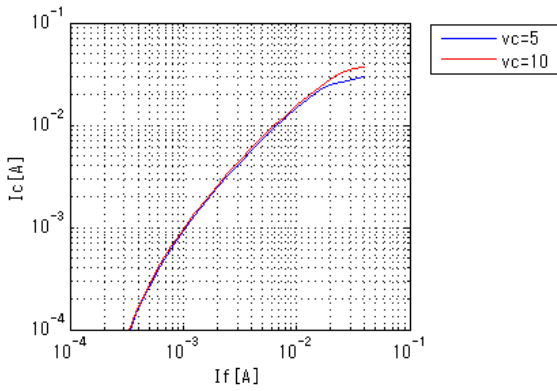
**IcVce[If]**

Temp. = 25deg C



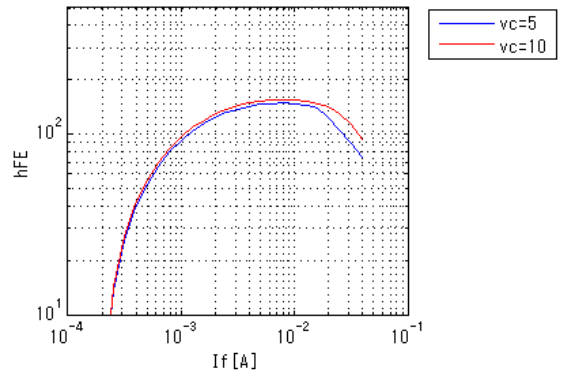
**IcIf[Vce]**

Temp. = 25deg C



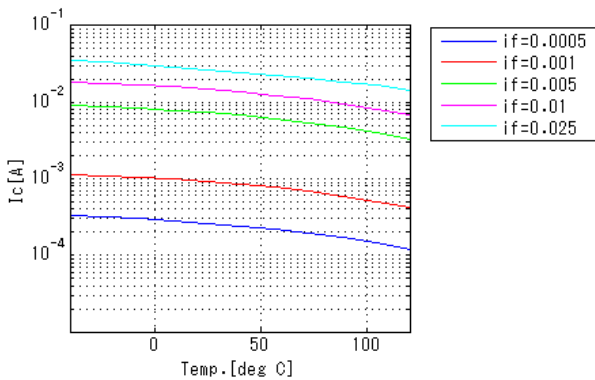
**hFEIf[Vce]**

Temp. = 25deg C



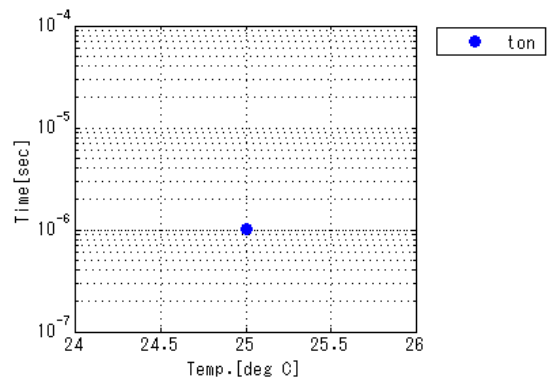
**IcTemp[If]**

$V_c = 5V$



**SwitchingTime**

$+I_f = 0.016A, -I_f = 0A, V_c = 5V, R_l = 10000ohm$

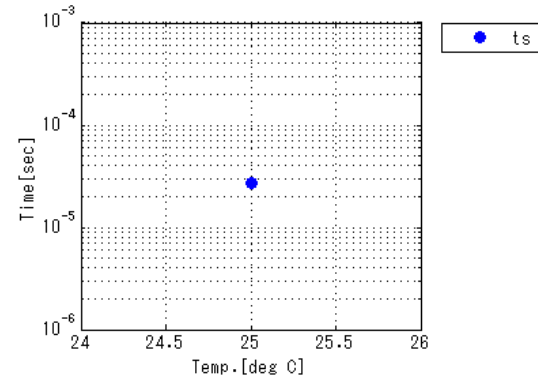


Simulation results are following.

Explanatory notes — : simulated

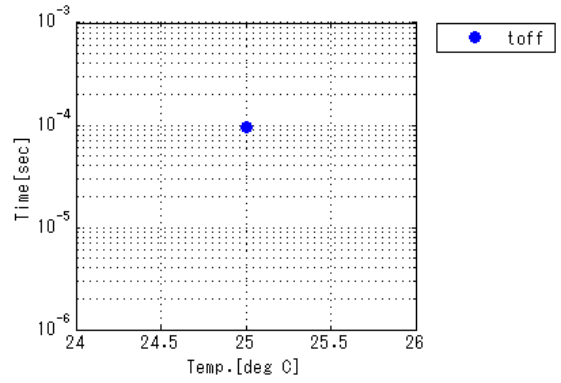
**SwitchingTime2**

+If = 0.016A, -If = 0A, Vc = 5V, RI = 10000ohm



**SwitchingTime3**

+If = 0.016A, -If = 0A, Vc = 5V, RI = 10000ohm



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MoDeCH Inc.

Head Office

Location: Mitsuisseimei Hachioji Bldg., 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:[model-on-support@modech.co.jp](mailto:model-on-support@modech.co.jp)

URL:<http://www.modech.com/en/>