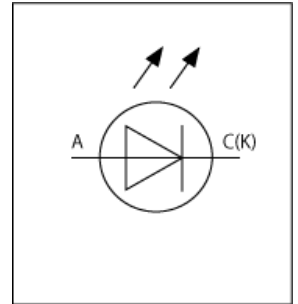


# PSpice Model

## Light Emitting Diode

### VISHAY POLYTECH

### VSMB10941X01



### Model Information

**Model** A macro model based on general SPICE diode model  
**Call Name** MDC\_VSMB10941X01\_PS  
**Pin Assign** 1:A 2:C  
**File List** Model Library MDC\_VSMB10941X01\_PS01.lib  
 Model Report MDC\_VSMB10941X01\_PS.pdf (this file)

**Verified Simulator Version** PSpice version 17.2  
**Note**

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev. 1.1, 05-Aug-2019
- Product name VSMB10941X01
- Company name Vishay Polytech Co., Ltd.
- Characteristics IfVf[Temp],IrVr[Temp],CjVr, SurgeWaveform

### 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.	
Reverse Voltage	0	to	5	V
Temperature	-55	to	105	deg C

Diode

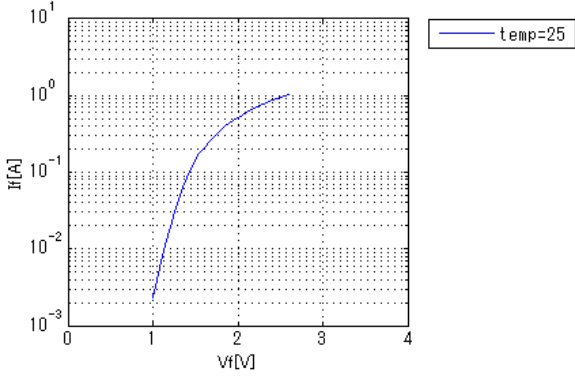
○ : Implemented  
 × : Not Implemented  
 — : Not applicable

**Model Functions Table**
**RANK=1**

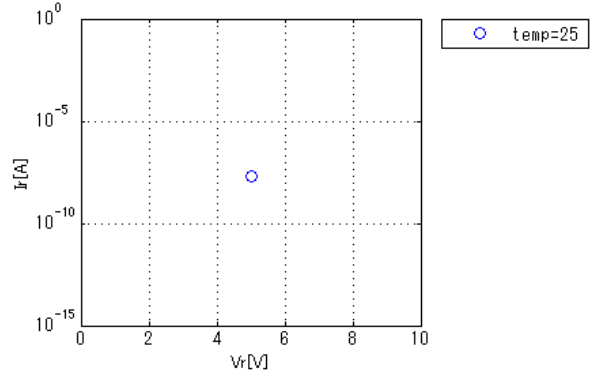
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	—
Zz-Iz	1	—
Rectification characteristics(Bridge)	1	—
Surge-Transient	1	○
tlp	1	—

Simulation results are following.  
 Explanatory notes — : simulated

**IfVf[Temp]**

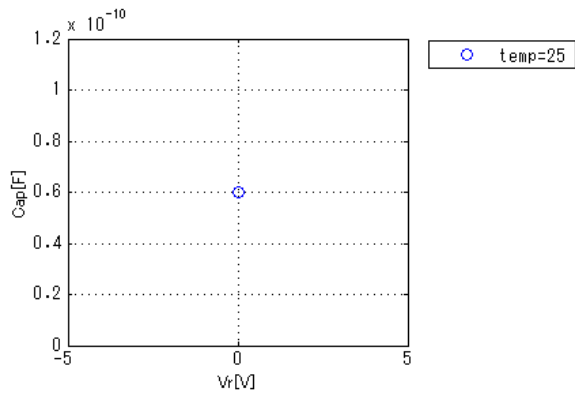


**IrVr[Temp]**



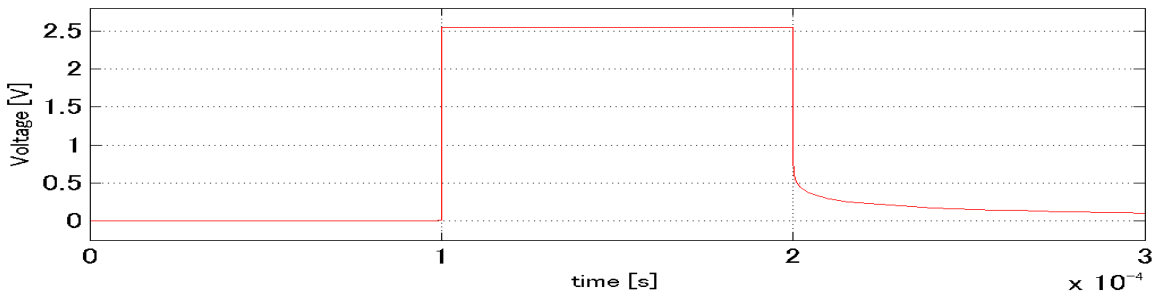
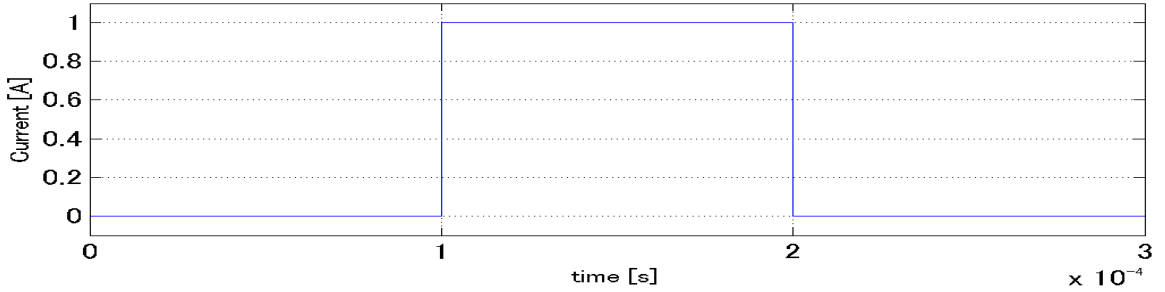
**CjVr**

Freq = 1000000Hz



Simulation results are following.  
Explanatory notes — : simulated

**Surge Current Waveform ( Forward tp=100us )**



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