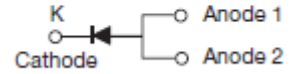


# PSpice Model Schottky Diode VISHAY POLYTECH V10P45

## SMPC (TO-277A)



## Model Information

<b>Model</b>	A macro model based on general SPICE diode model		
<b>Call Name</b>	MDC_V10P45_PS		
<b>Pin Assign</b>	1:A 2:A K:C		
<b>File List</b>	Model Library	MDC_V10P45_PS01.lib	
	Model Report	MDC_V10P45_PS.pdf (this file)	
<b>Verified Simulator Version</b>	PSpice version 17.2		
<b>Note</b>			

## References

The information which was used for modeling is as follow:

[Data Sheet]

●Date/Version	30-Oct-2019
●Product name	V10P45
●Company name	Vishay Polytech Co., Ltd.
●Characteristics	IrVr[Temp],CjVr,IfVf[Temp],SurgeCurrentWaveform

## 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	45	to	45	V
Temperature	-40	to	150	deg C

Diode

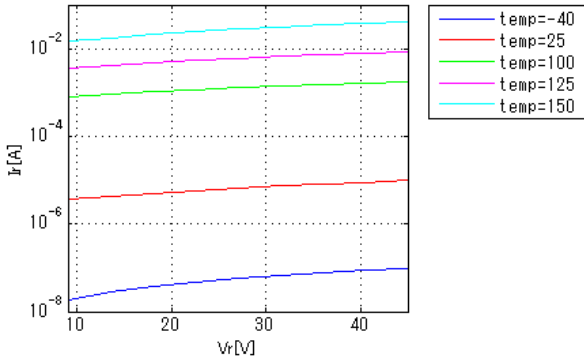
○ : Implemented  
 × : Not Implemented  
 — : Not applicable

**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	—

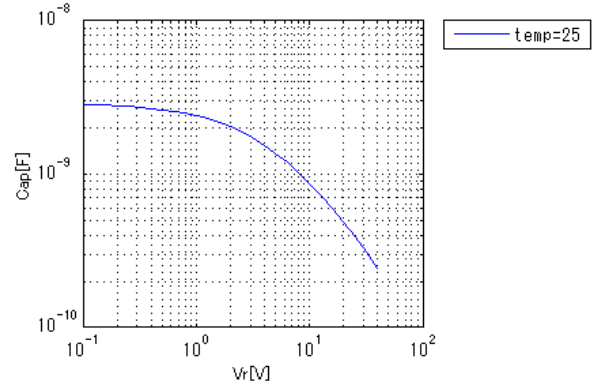
Simulation results are following.  
 Explanatory notes — : simulated

**IrVr[Temp]**

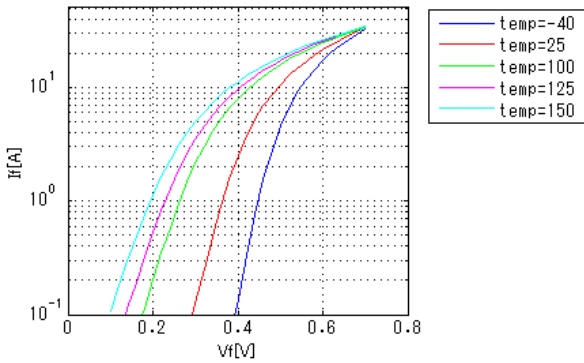


**CjVr**

Freq = 1000000Hz

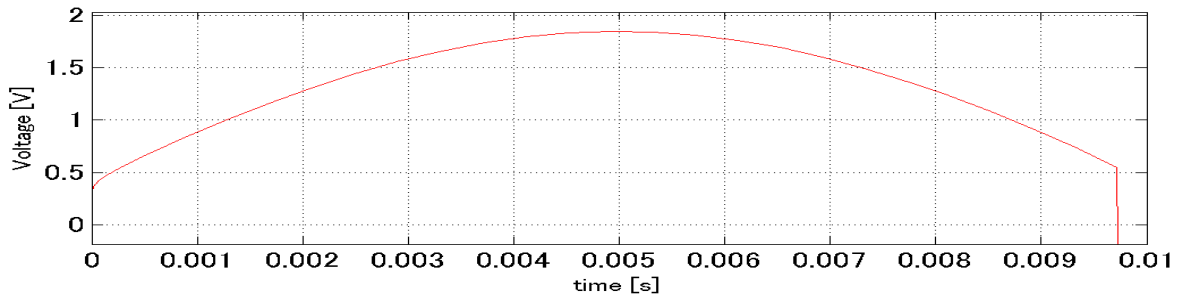
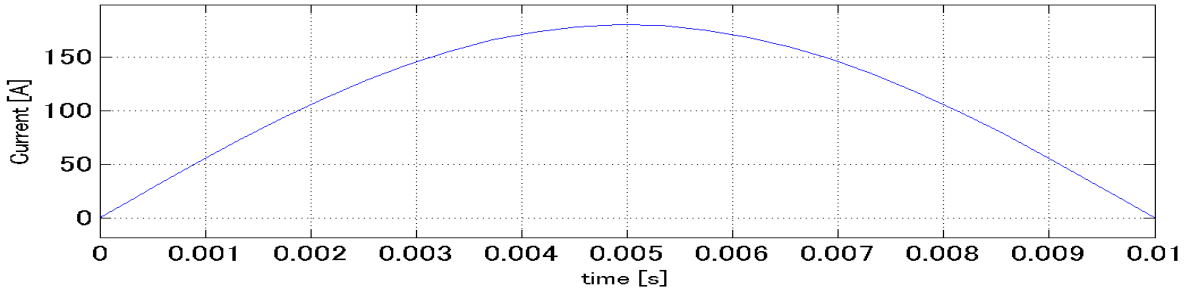


**IfVf[Temp]**



Simulation results are following.  
Explanatory notes — : simulated

**Surge Current Waveform ( Forward Sine Half 50Hz )**



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