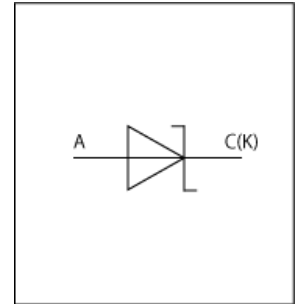


PSpice Model

Zener Diode

VISHAY POLYTECH

TPSMA33AHM3J_B



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_TPSMA33AHM3J_B_PS
Pin Assign 1:A 2:C
File List Model Library MDC_TPSMA33AHM3J_B_PS02.lib
 Model Report MDC_TPSMA33AHM3J_B_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 19-Apr-2021
- Product name TPSMA33AHM3J_B
- Company name Vishay Polytech Co., Ltd.
- Characteristics VfIf[Temp],VrIr[Temp],IrVr[Temp],VrIr[Temp]2,CjVr, SurgeWa veform

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.	
ZenerVoltage(typ)	33(at 1mA)	to	33(at 1mA)	V
ClampingVoltage(max)	45.7(at 8.8A)	to	45.7(at 8.8A)	V
Temperature	-65	to	185	deg C

Diode

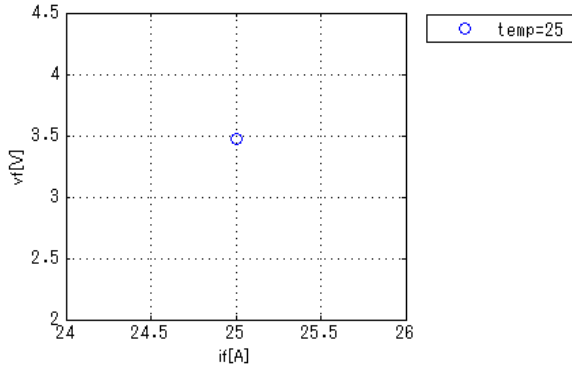
○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=1

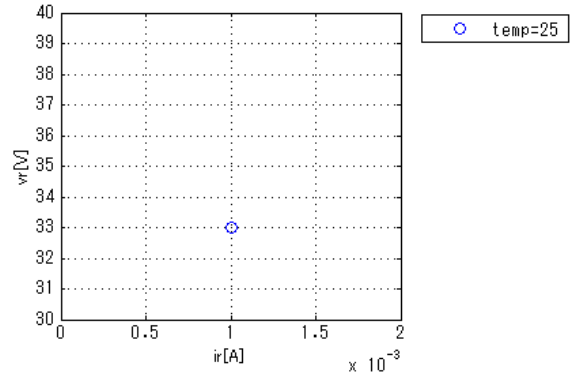
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	—
Rectification characteristics(Bridge)	1	—
Surge reverse current-Transient	1	○

Simulation results are following.
 Explanatory notes — : simulated

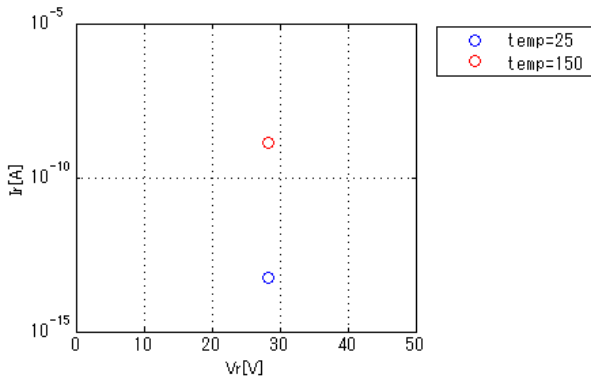
Vflf[Temp]



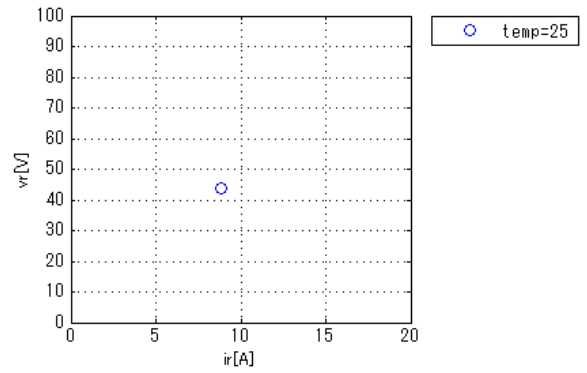
Vrlr[Temp]



IrVr[Temp]

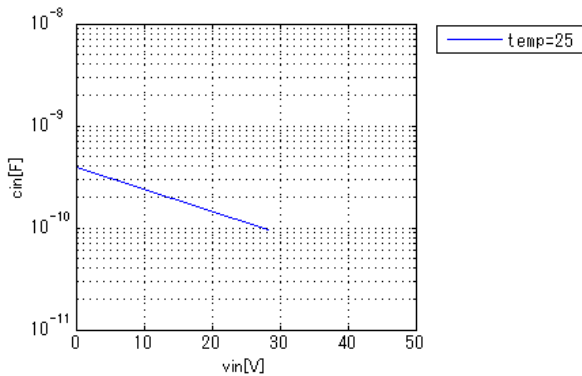


Vrlr[Temp]2



CjVr

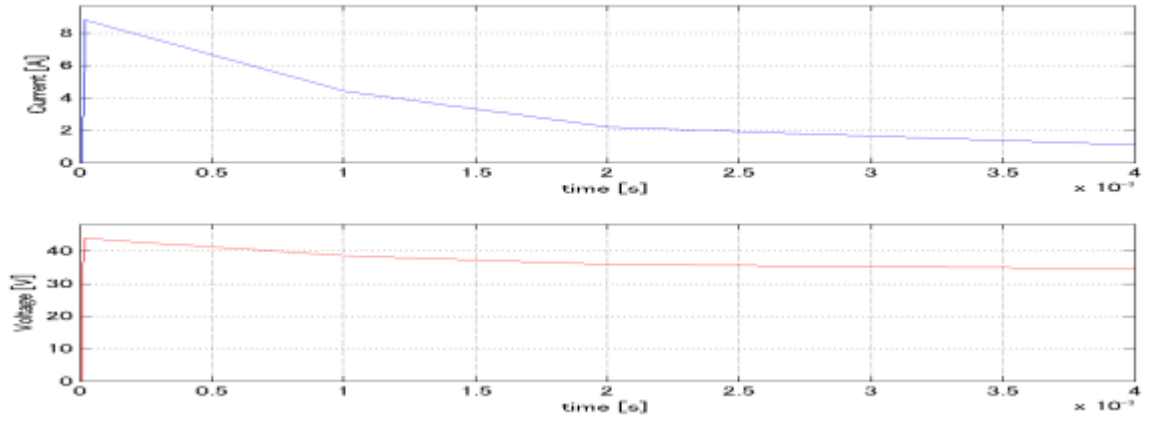
Freq. = 1MHz



Simulation results are following.

Explanatory notes — : simulated

Surge Reverse Current Waveform



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