

PSpice Model

Schottky Barrier Diode

Vishay

V3FL45

Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_V3FL45_PS
Pin Assign 1:A 2:C
File List Model Library MDC_V3FL45_PS.lib
 Model Report MDC_V3FL45_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 2020-05-13
- Product name V3FL45
- Company name Vishay Intertechnology, Inc.

[Characteristics listed]

- Characteristics IfVf[Temp], IrVr[Temp], CjVr

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	9	to	45	V
Temperature	-40	to	150	deg C

Diode

○ : Implemented
 × : Not Implemented
 – : Not applicable

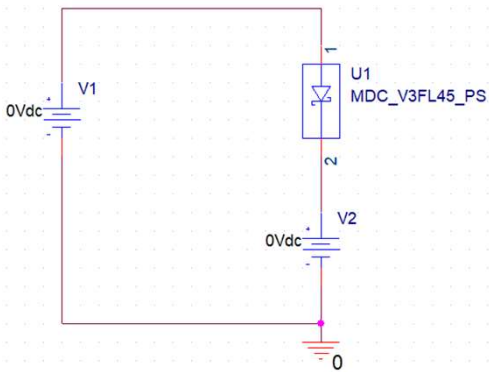
Model Functions Table

RANK=1

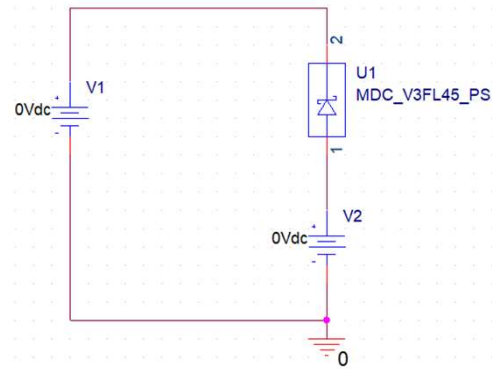
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	–
Rectification characteristics(Bridge)	1	–
Surge voltage-Transient	2	–

**IfVf[Temp], IrVr[Temp] Testbench
Referred to Data Sheet**

IfVf[Temp]

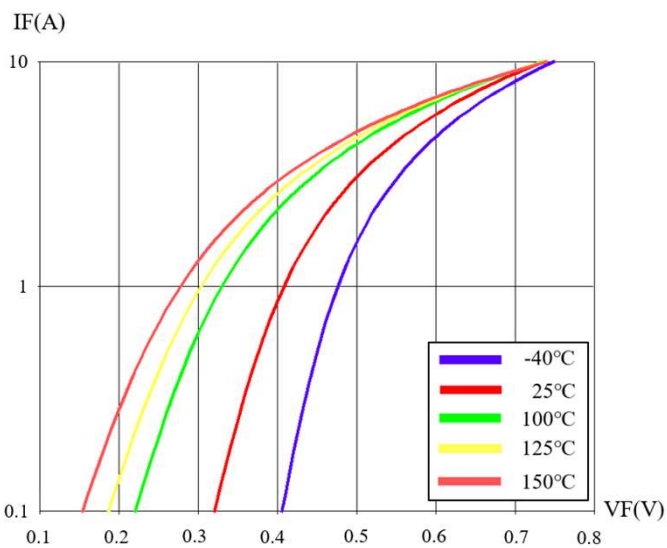


IrVr[Temp]

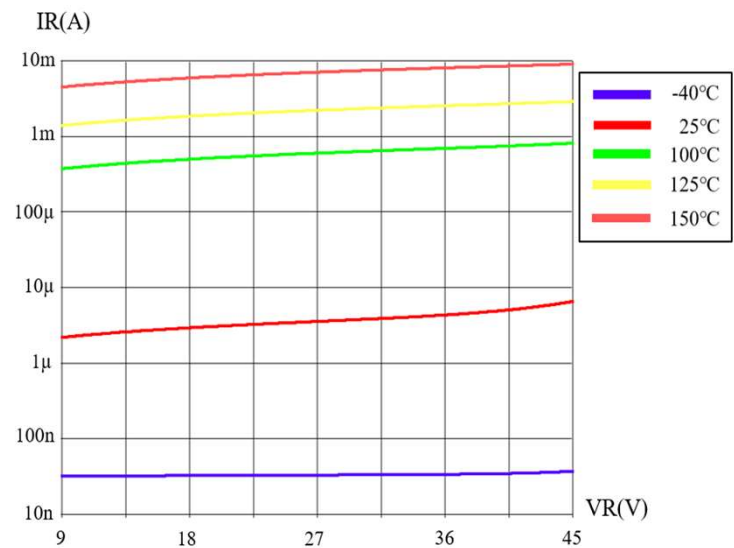


Simulation results are following.
Explanatory notes — : simulated

IfVf[Temp]



IrVr[Temp]



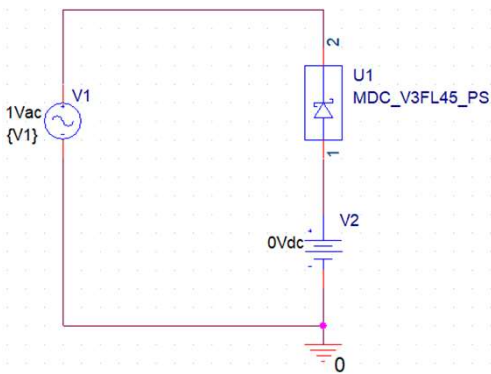
CjVr Testbench

Referred to Data Sheet

CjVr

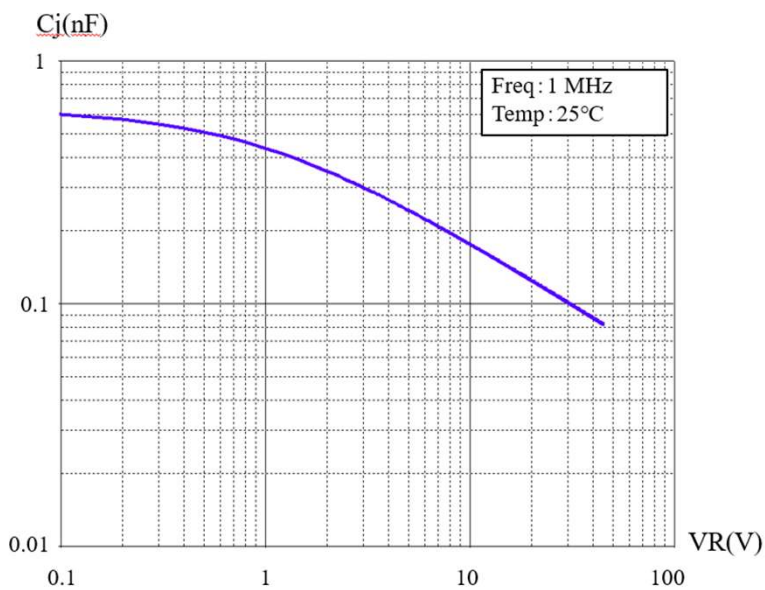
PARAMETERS:

V1 = 0



Simulation results are following.
 Explanatory notes — : simulated

CjVr



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