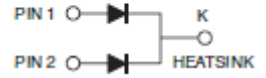


LTspice Model Schottky Diode VISHAY POLYTECH V20PWM45C

SlimDPAK (TO-252AE)



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_V20PWM45C_LT
Pin Assign 1:A1 2:A2 K;C
File List Model Library MDC_V20PWM45C_LT01.lib
 Model Report MDC_V20PWM45C_LT.pdf (this file)

Verified Simulator Version LTspice version XVII
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 17-Mar-2022
- Product name V20PWM45C
- 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	-55	to	175	deg C

Diode

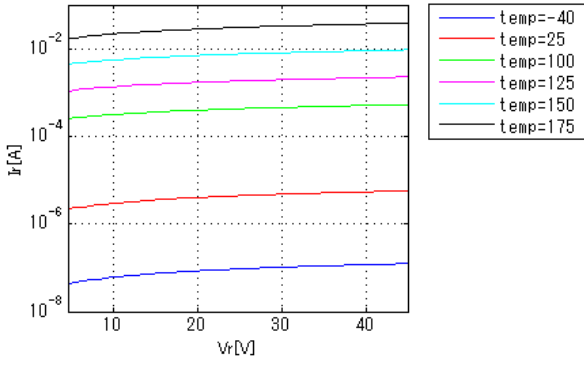
○ : Implemented
 × : Not Implemented
 — : Not applicable

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	—

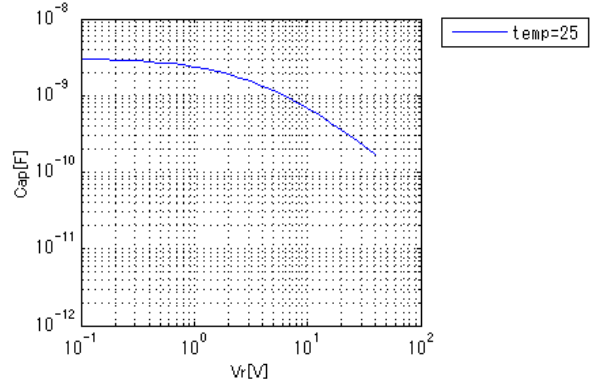
Simulation results are following.
 Explanatory notes — : simulated

IrVr[Temp]

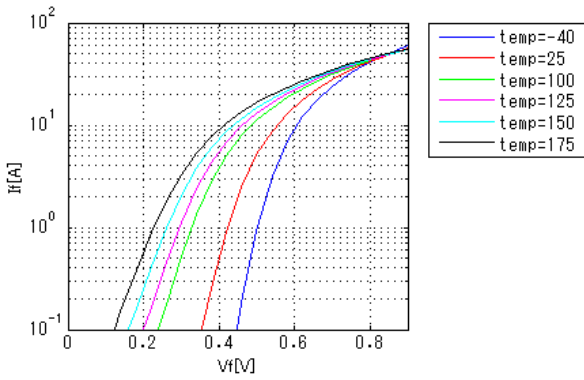


CjVr

Freq = 1000000Hz

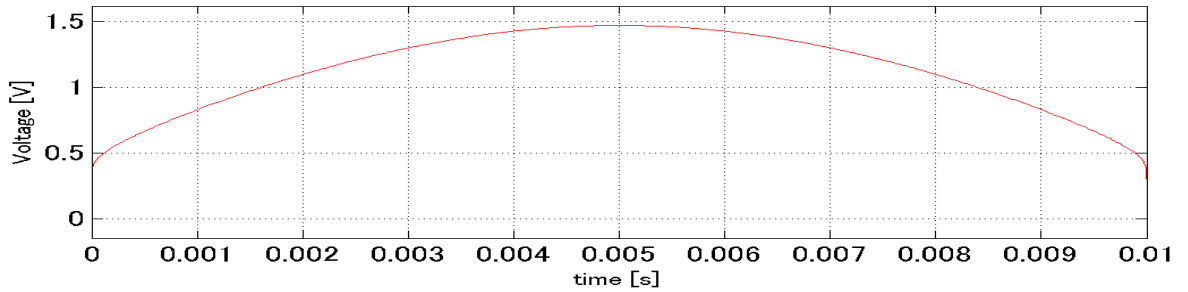
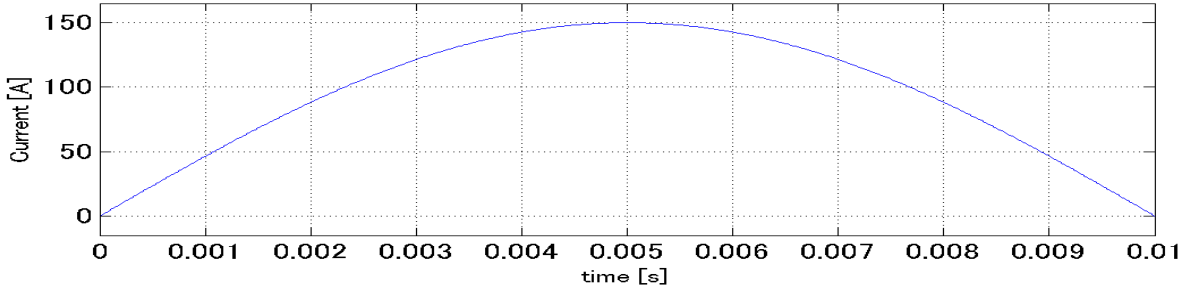


IfVf[Temp]



Simulation results are following.
Explanatory notes — : simulated

Surge Current Waveform (Forward Sine Half 50Hz)



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MoDeCH Inc.

Head Office

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

Tel:+81-42-656-3360

E-Mail:model-on-support@modech.co.jp

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