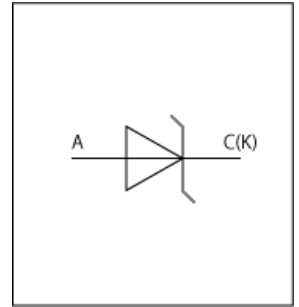


LTspice Model

TVS

VISHAY POLYTECH

TPSMA36A



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_TPSMA36A_LT
Pin Assign 1:A 2:C
File List Model Library MDC_TPSMA36A_LT01.lib
 Model Report MDC_TPSMA36A_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 19-Apr-2021
- Product name TPSMA36A
- Company name Vishay Polytech Co., Ltd.
- Characteristics VrIr[Temp],BvTemp,IrVr[Temp],CjVr,IrVf[Temp],SurgeCurrentWaveform(Forward),SurgeCurrentWaveform(Reverse)

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	36	to	36	V
Temperature	-65	to	185	deg C

Diode

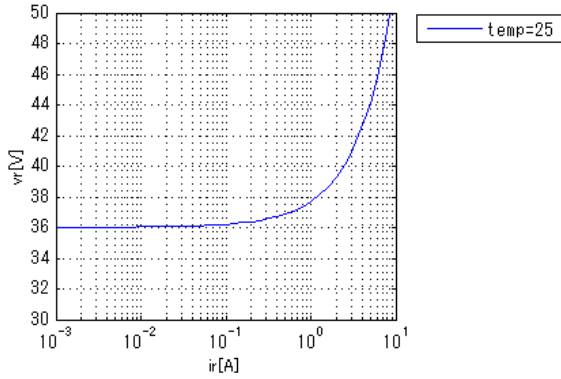
○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=1

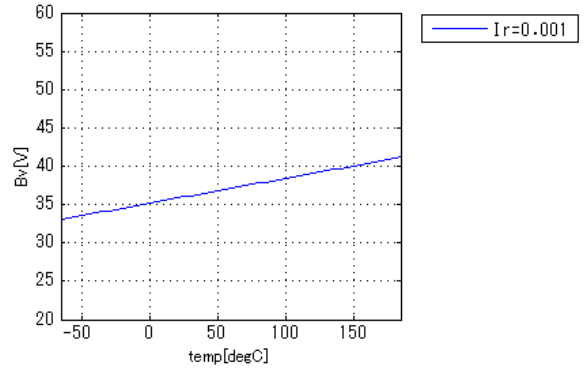
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
BV(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	—
Zz-Iz	1	—
Rectification characteristics(Bridge)	1	—
Surge-Transient	1	○
tlp	1	—

Simulation results are following.
 Explanatory notes — : simulated

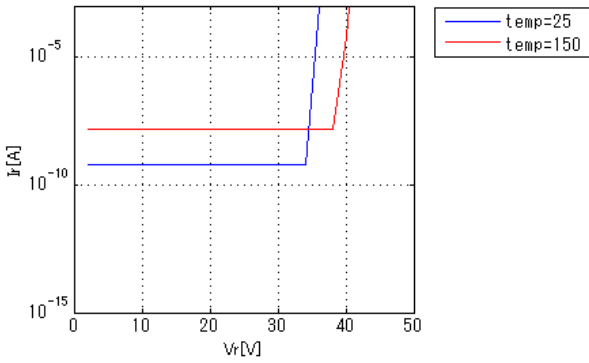
VrIr[Temp]



BvTemp

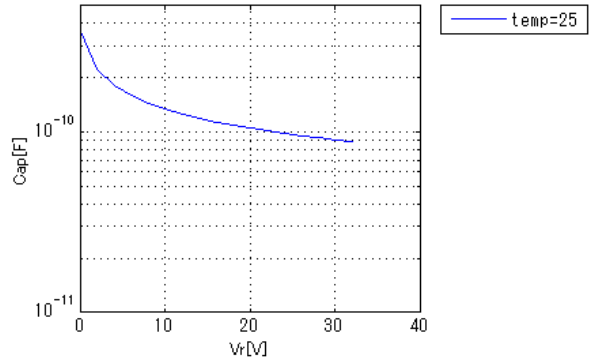


IrVr[Temp]

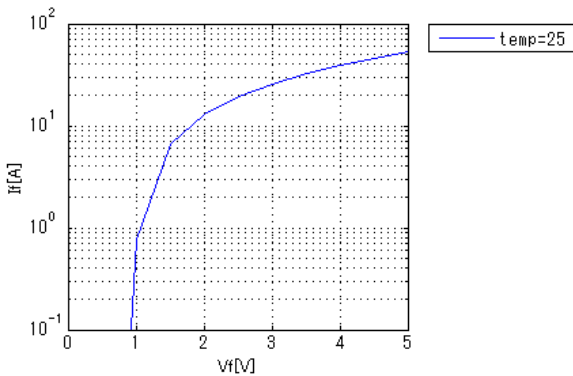


CjVr

Freq = 1000000Hz

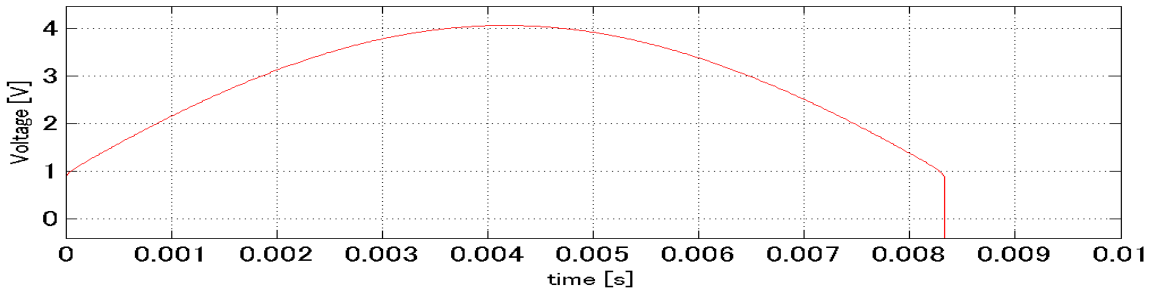
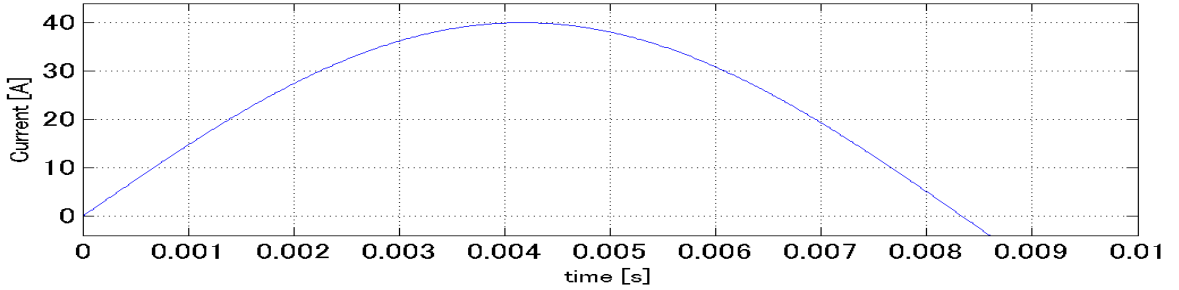


IfVf[Temp]

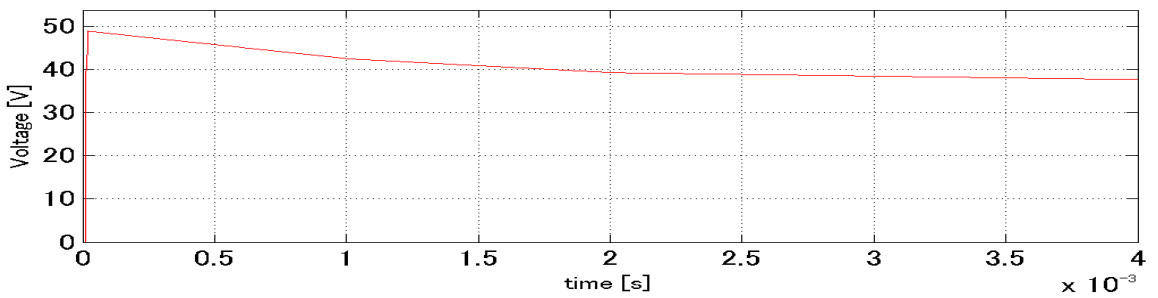
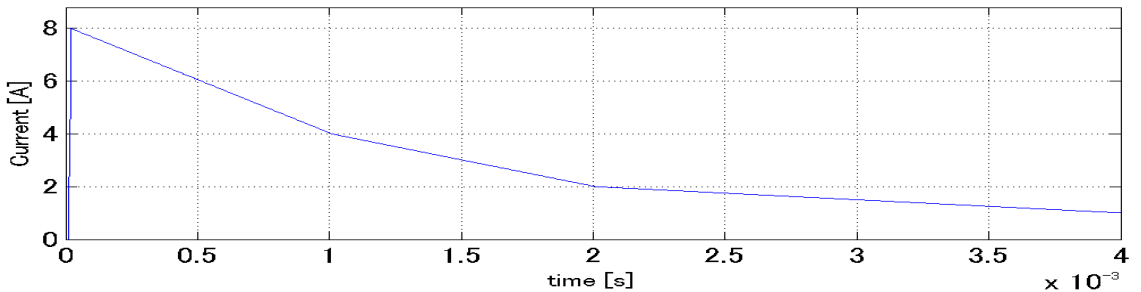


Simulation results are following.
Explanatory notes — : simulated

Surge Current Waveform (Forward Sine Half 60Hz)



Surge Current Waveform (Reverse 10u/1000u)



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