

LTspice Model

TVS

ROHM

VS3V3BL1HST15R



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_VS3V3BL1HST15R_LT
Pin Assign 1:A 2:A
File List Model Library MDC_VS3V3BL1HST15R_LT01.lib
 Model Report MDC_VS3V3BL1HST15R_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 2016//11/29_Rev.001
- Product name VS3V3BL1HST15R
- Company name ROHM Co., Ltd.
- Characteristics VrIr[Temp],IrVr[Temp],CjVr,IrVr[Temp]2,Tlp,ClampingVoltage

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 (Ir=1mA)	8	to	8	V
Temperature	-55	to	150	deg C

Diode

○ : Implemented
× : Not Implemented
— : Not applicable

Model Functions Table

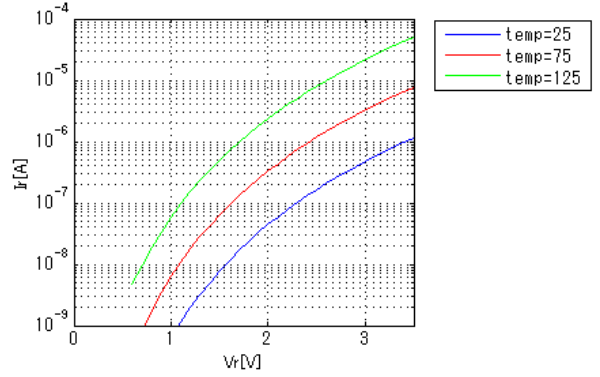
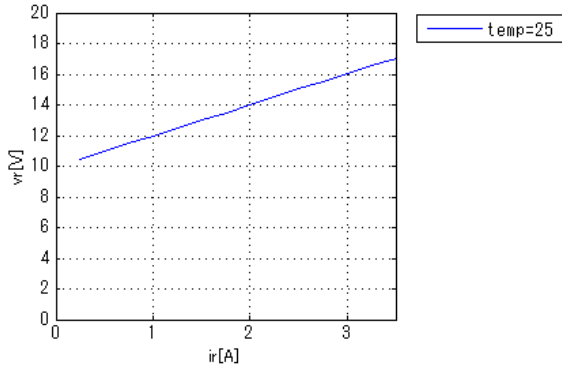
RANK=1

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 voltage-Transient	1	○
Tlp-Transient	1	○

Simulation results are following.
 Explanatory notes — : simulated

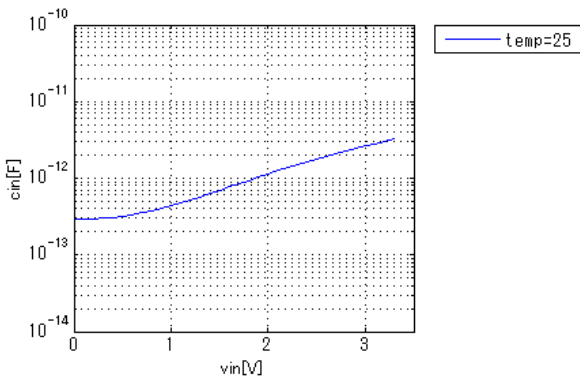
VrIr[Temp]

IrVr[Temp]



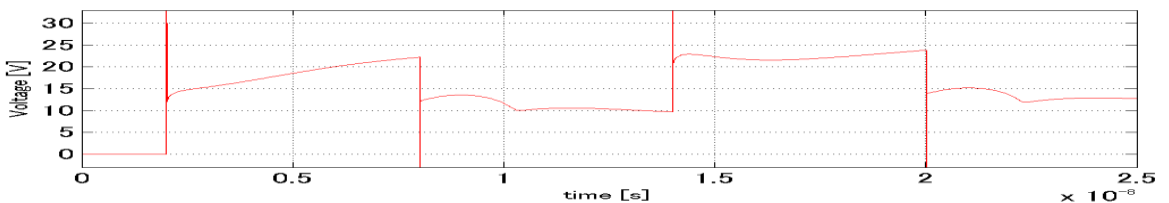
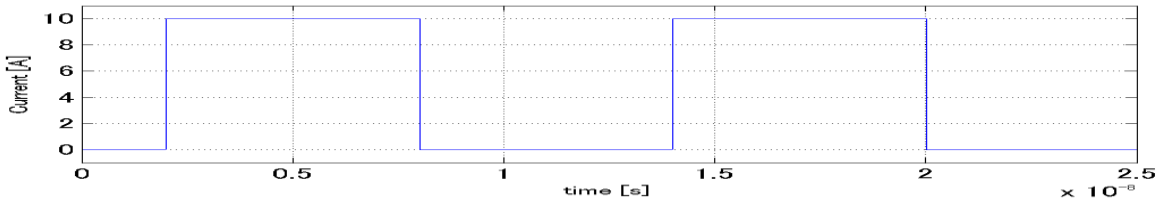
CjVr

Freq = 1000000Hz



Tlp

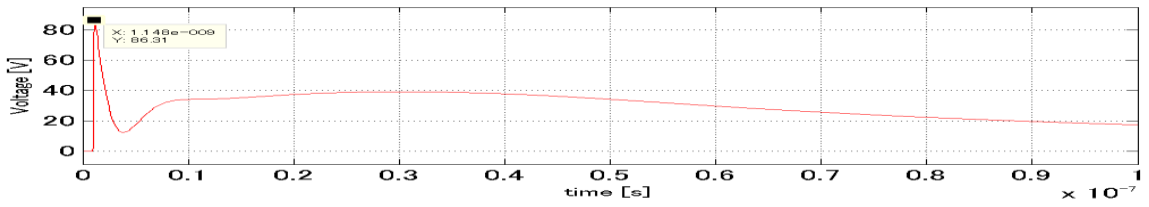
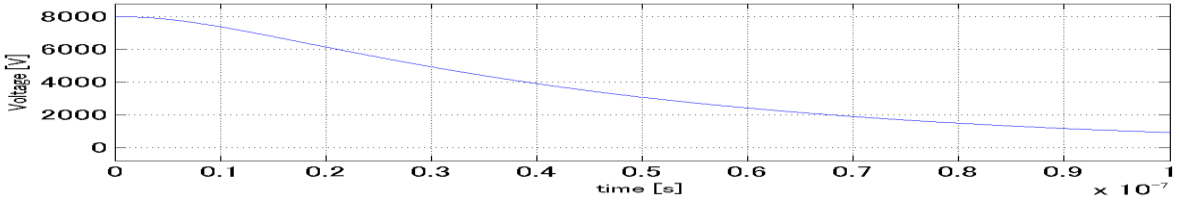
Tp = 6ns



Simulation results are following.
Explanatory notes — : simulated

Clamping Voltage

Contact=8kV



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