

LTspice Model

Varistor

Panasonic

ERZVA7V391



Model Information

Model A macro model
Call Name MDC_ERZVA7V391_LT
Pin Assign 1:1 2:2
File List Model Library MDC_ERZVA7V391_LT01.lib
 Model Report MDC_ERZVA7V391_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 2021/12/23
- Product name ERZVA7V391
- Company name Panasonic Corporation
- Characteristics V_l IfTemp, VaristorVoltage, CapacitanceV_r, ClampingCurrentW
aveform, 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.	
VaristorVoltage(typ)	390(at 1mA)	to	390(at 1mA)	V
ClampingVoltage(max)	650(at 10A)	to	650(at 10A)	V
Temperature	-40	to	125	deg C

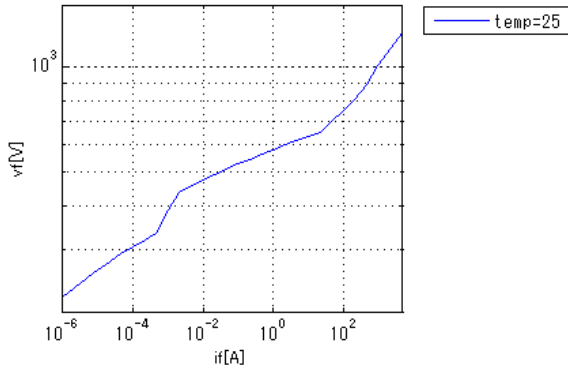
○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=1

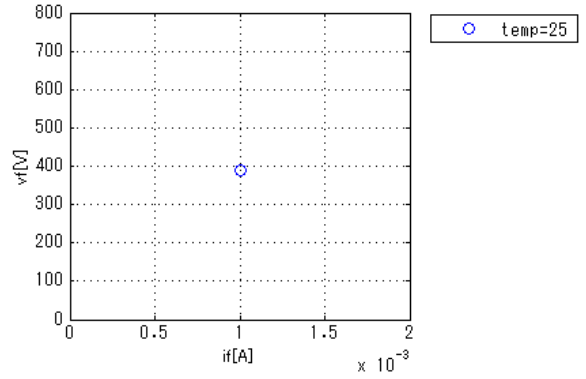
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○

Simulation results are following.
 Explanatory notes — : simulated

VfIf[Temp] (same VrIr[Temp])

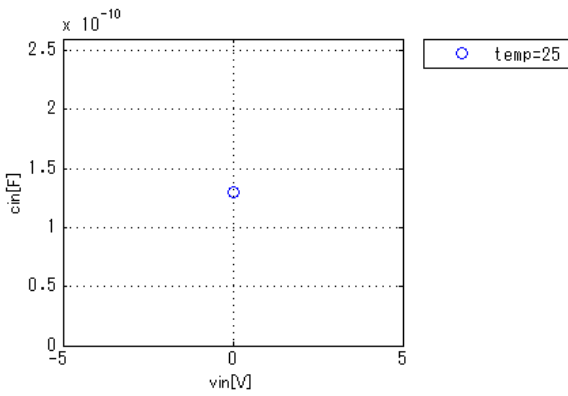


Varistor Voltage

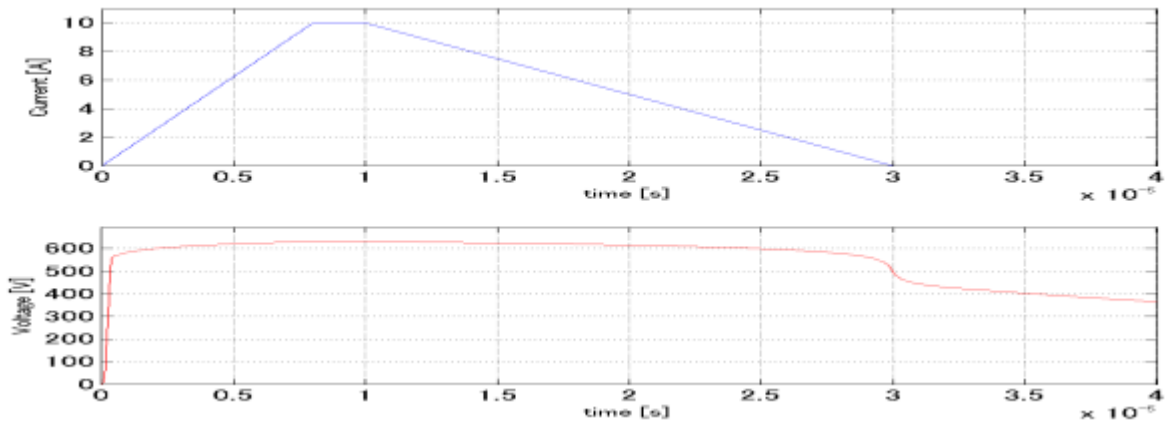


CapacitanceVr

Freq = 1000Hz

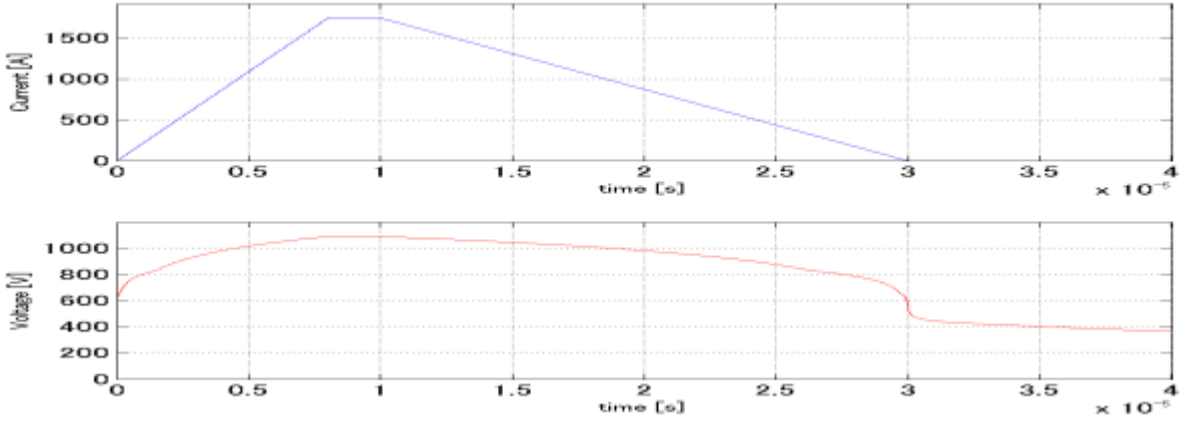


Clamping Current Waveform



Simulation results are following.
Explanatory notes — : simulated

Surge Current Waveform



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