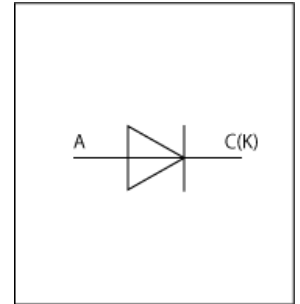


ADS Model

Fast Recovery Diode

ROHM

RF071L4STF



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_RF071L4STF_AD
Pin Assign 1:A 2:C
File List Model Library MDC_RF071L4STF_AD.zip
 Model Report MDC_RF071L4STF_AD.pdf (this file)

Verified Simulator Version ADS 2022 update 1
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 2017.02 - Rev.E
- Product name RF071L4STF
- Company name ROHM Co., Ltd.
- Characteristics IfVf[Temp],IrVr[Temp],CjVr,Trrlflr,TrrWaveform,SurgeWaveform

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	0	to	400	V
Temperature	-55	to	150	deg C

Diode

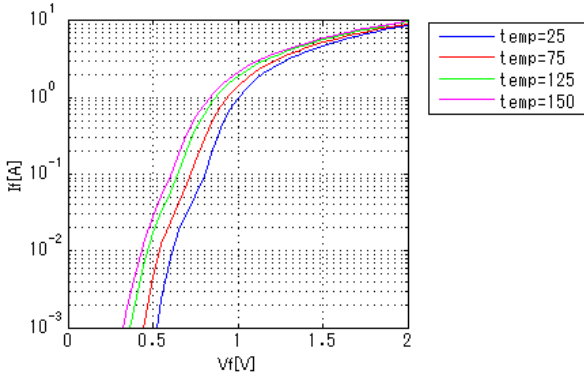
○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=1

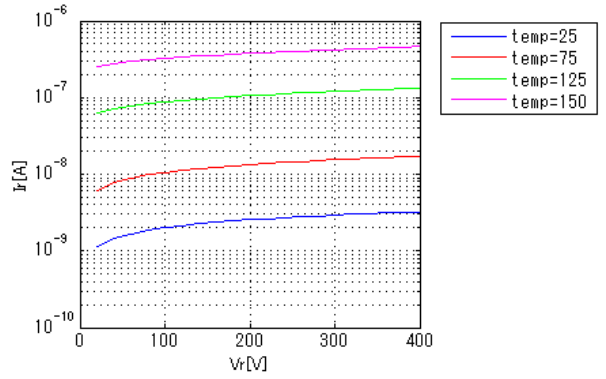
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	○
Rectification characteristics(Bridge)	1	—
Surge current-Transient	1	○

Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]

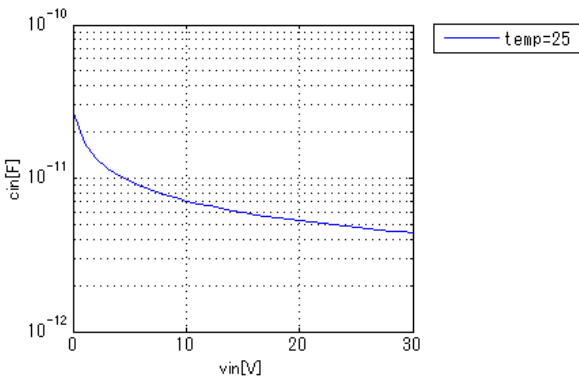


IrVr[Temp]



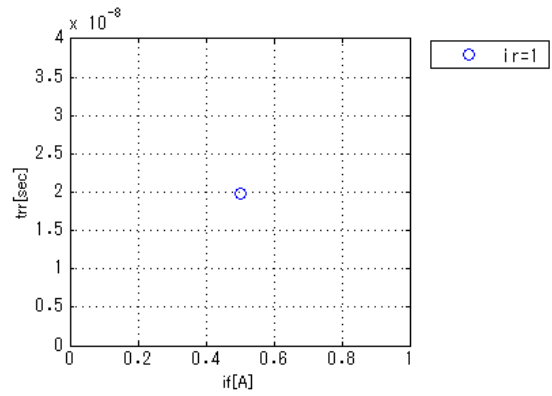
CjVr

Freq = 1000000Hz



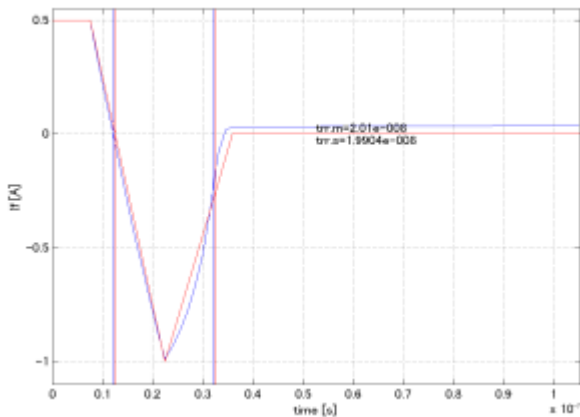
TrrIfIr

irr = 0.25A, didt = 100A/us



Trr Waveform (Red Datasheet Blue : Simulation)

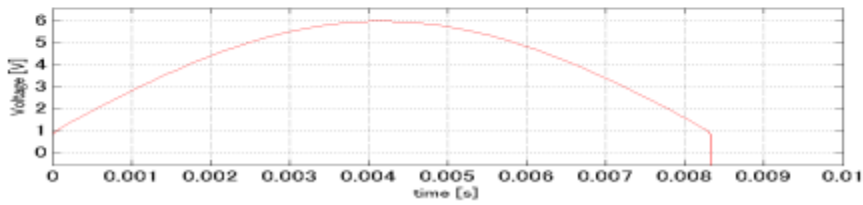
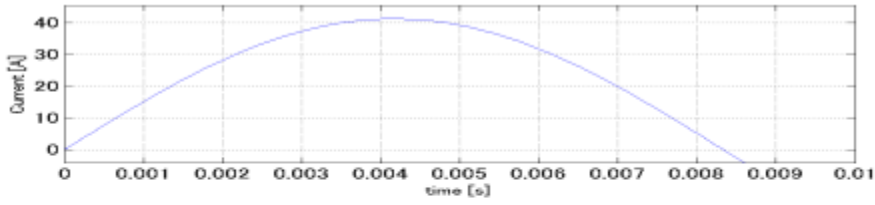
if = 0.5A, ir = 1A, irr = 0.25A, didt = 100A/us



Simulation results are following.

Explanatory notes — : simulated

Surge Waveform (60Hz forward half sine Blue : Input Current Red : Sim Voltage)



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