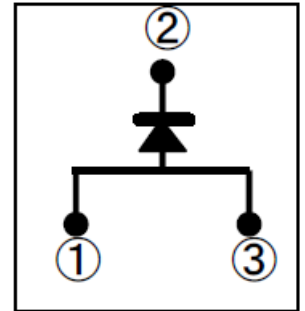


PSpice Model

Fast Recovery Diode

ROHM

RFN10NS3STL



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_RFN10NS3STL_PS
Pin Assign 1:A 2:C 3:A
File List Model Library MDC_RFN10NS3STL_PS01.lib
 Model Report MDC_RFN10NS3STL_PS.pdf (this file)
Verified Simulator Version PSpice version 17.2
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 2011.10
- Product name RFN10NS3STL
- Company name ROHM Co., Ltd.
- Characteristics IfVf[Temp], IrVr[Temp], CjVr, Trrlflr, TrrWaveform

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 | 350 | V |
| Temperature | -55 | to | 150 | deg C |

Diode

○ : Implemented
× : Not Implemented
— : Not applicable

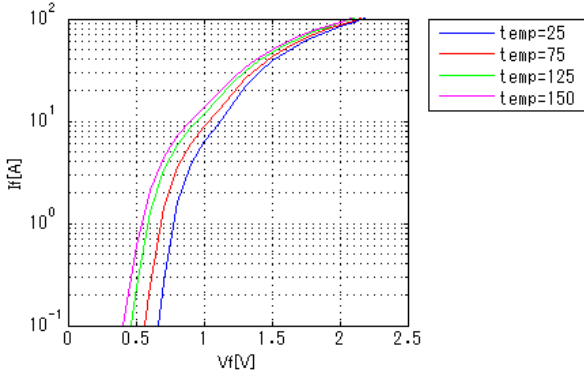
Model Functions Table

RANK=1

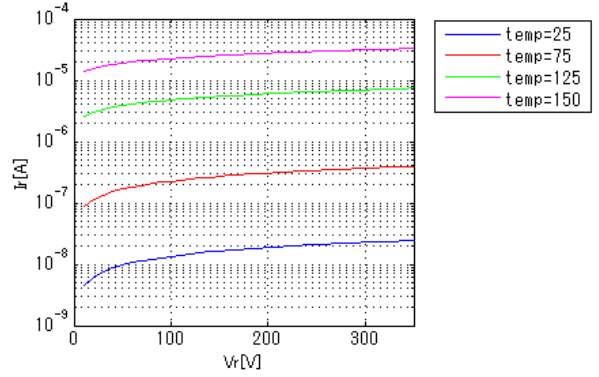
| Functions | RANK | Implemented |
|---------------------------------------|------|-------------|
| IF-VF(Temp) | 1 | ○ |
| IR-VR(Temp) | 1 | ○ |
| Capacitance | 1 | ○ |
| Reverse recovery characteristics | 1 | ○ |
| Rectification characteristics(Bridge) | 1 | — |
| Surge voltage-Transient | 2 | — |

Simulation results are following.
 Explanatory notes — : simulated

IfVf[Temp]

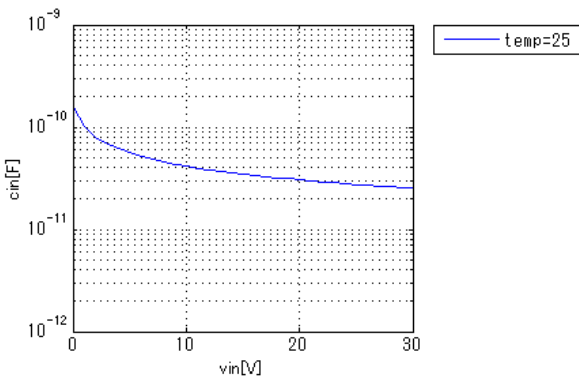


IrVr[Temp]



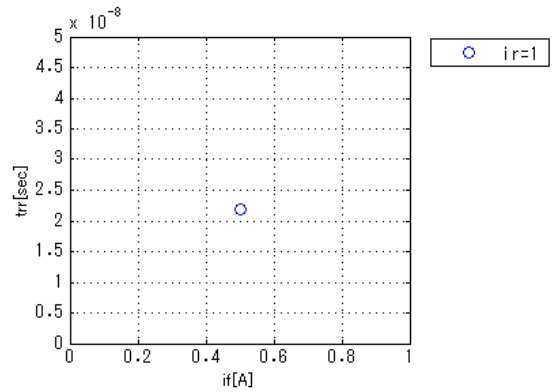
CjVr

Freq. = 1MHz



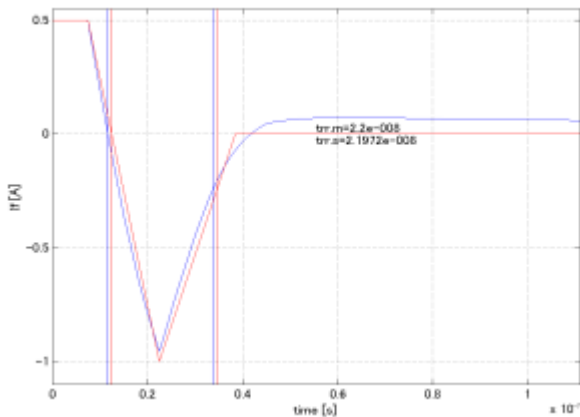
TrrIfIr

irr = 0.25A, didt = 100A/us



Trr Waveform (Red : Datasheet Blue : Simulation)

irr = 0.25A, didt = 100A/us



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