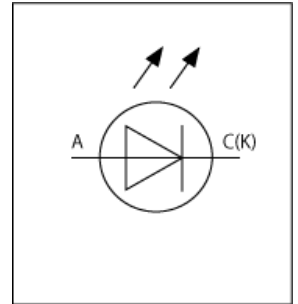


PSpice Model

Light Emitting Diode

ASAHI RUBBER

NHSB146A



Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_NHSB146A_PS
Pin Assign 1:A 2:C
File List Model Library MDC_NHSB146A_PS01.lib
 Model Report MDC_NHSB146A_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 2022.12.2
- Product name NHSB146A
- Company name ASAHI RUBBER Inc.
- Characteristics $I_f[V(Temp)], V_f(Temp)[I_f], I_r[V_r(Temp)], SurgeWaveform$

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. | |
| Temperature | -40 | to | 110 | deg C |

Diode

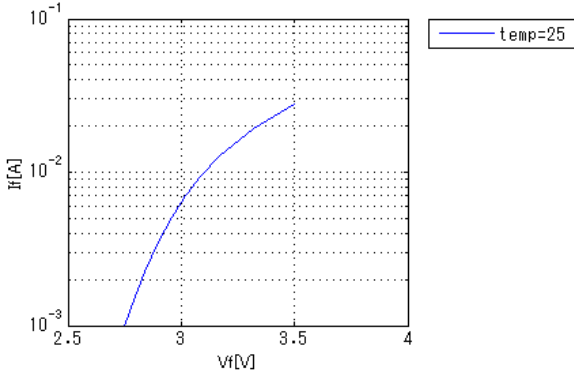
○ : Implemented
× : Not Implemented
— : Not applicable

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-Transient | 1 | ○ |
| tlp | 1 | — |

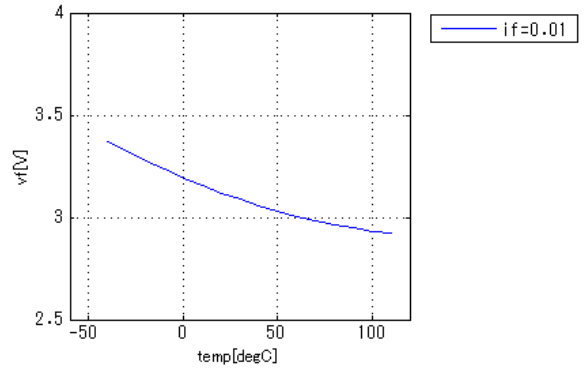
Simulation results are following.
Explanatory notes — : simulated

IfVf[Temp]

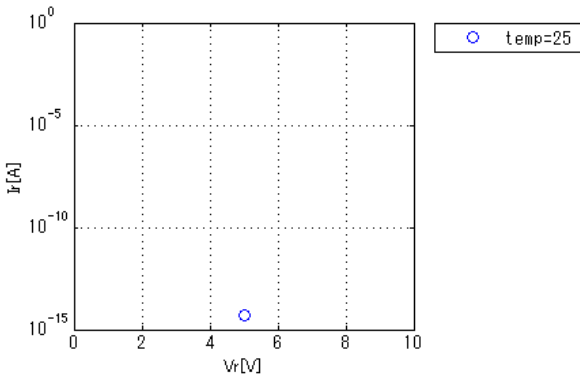


VfTemp[If]

if = 0.01



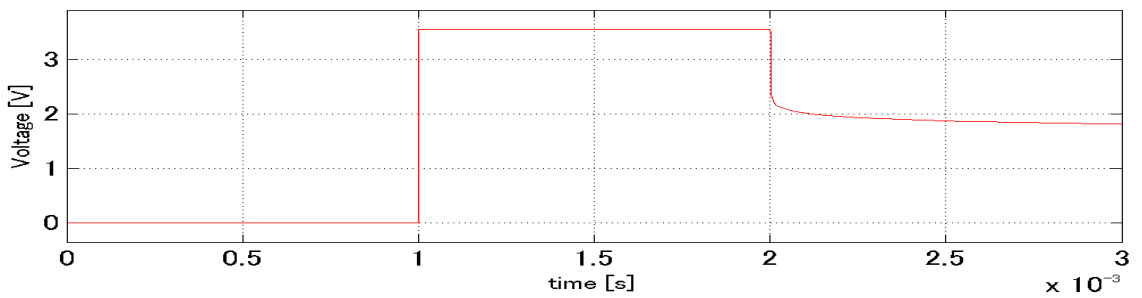
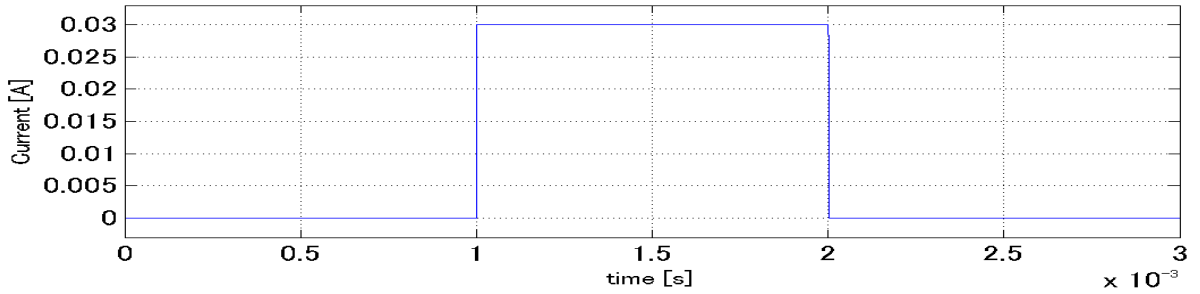
IrVr[Temp]



Simulation results are following.

Explanatory notes — : simulated

Surge Current Waveform (Forward $t_p=1\text{ms}$)



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