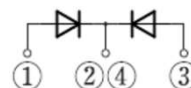


# PSpice Model

## Fast Recover Diode

### Shindengen

### DF20LC20US-7072



### Model Information

**Model** A macro model based on general SPICE diode model  
**Call Name** MDC\_DF20LC20US-7072\_PS  
**Pin Assign** 1:① 2:②, ④ 3:③  
**File List** Model Library MDC\_DF20LC20US-7072\_PS.lib  
 Model Report MDC\_DF20LC20US-7072\_PS.pdf(this file)  
**Verified Simulator Version** PSpice version 17.4

### Note

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev.01(2020.01)
- Product name DF20LC20US-7072
- Company name Shindengen Electric Manufacturing Co., Ltd.

[Characteristics listed]

- Characteristics IfVf[Temp], IrVr[Temp], CjVr, trrlflr

### 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	25	to	150	deg C

Diode

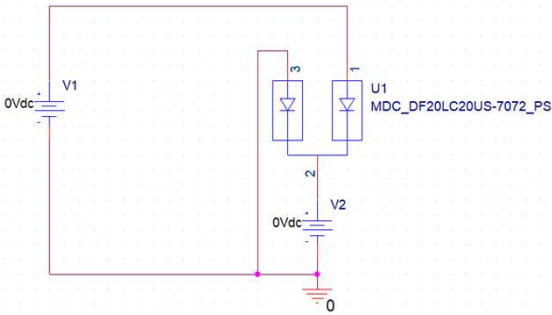
○ : Implemented  
 × : Not Implemented  
 – : Not applicable

**Model Functions Table**
**RANK=1**

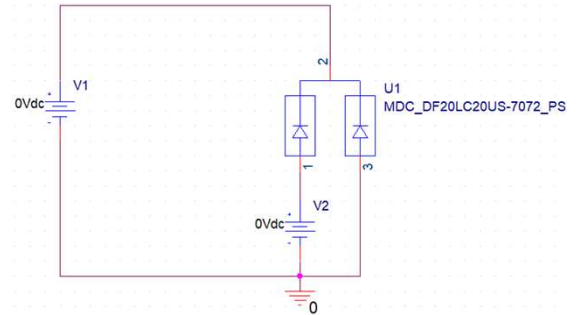
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	○
Rectification characteristics(Bridge)	1	–
Surge voltage-Transient	2	–

**IfVf[Temp], IrVr[Temp] Testbench  
Referred to Data Sheet**

**IfVf[Temp]**

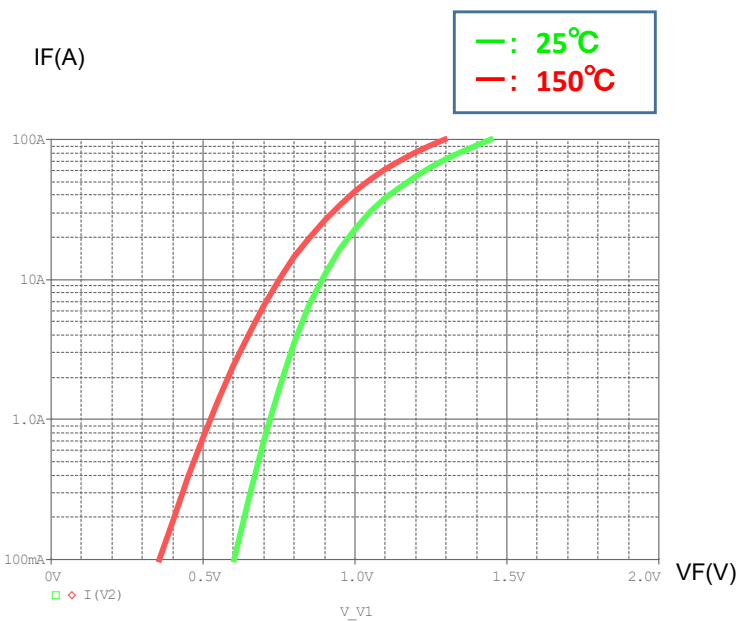


**IrVr[Temp]**



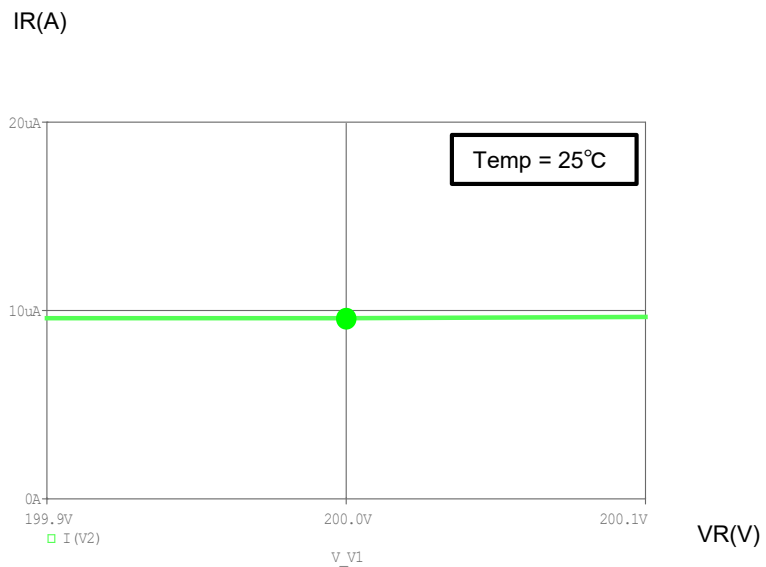
Simulation results are following.  
Explanatory notes — : simulated

**IfVf[Temp]**



**IrVr[Temp]**

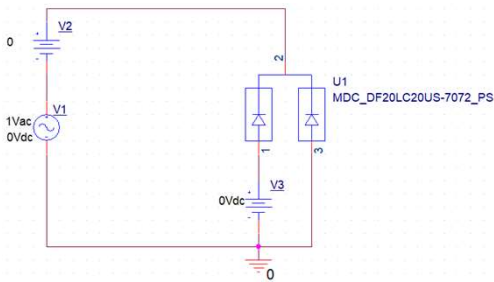
When VR=200V, IR<10µA



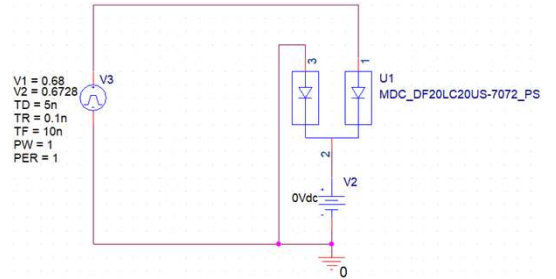
CjVr, trrlflr Testbench

Referred to Data Sheet

CjVr



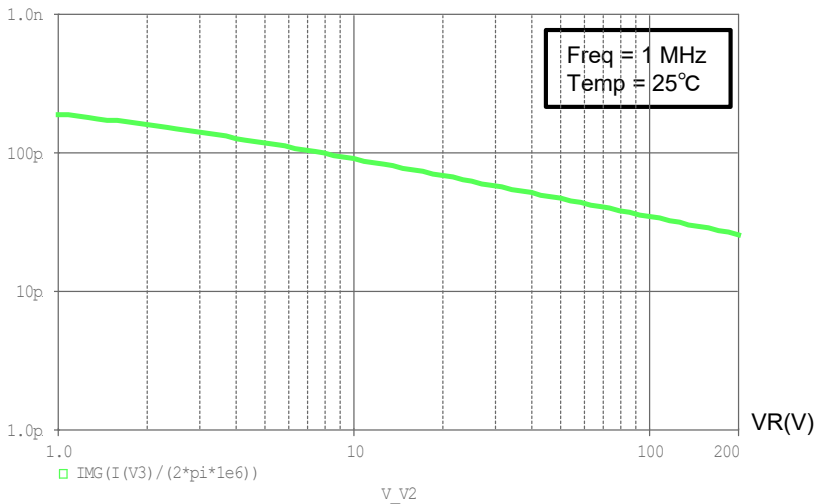
trrlflr



Simulation results are following.  
Explanatory notes — : simulated

CjVr

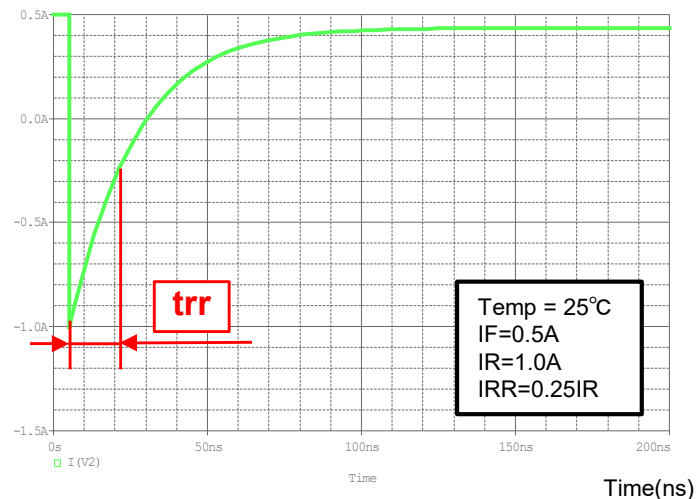
CJ (F)



trrlflr

trr=15.8 ns

I (A)



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