

PSpice Model

Schottky Barrier Diode

TOSHIBA

CRS10I40A

Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_CRS10I40A_PS
Pin Assign 1:A 2:C
File List Model Library MDC_CRS10I40A_PS.lib
 Model Report MDC_CRS10I40A_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 2022-05-26/Rev.3.0
- Product name CRS10I40A
- Company name Toshiba Electronic Devices & Storage Corporation

[Characteristics listed]

- Characteristics IfVf[Temp], IrTemp[Vr], CjVr

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	5	to	40	V
Temperature	25	to	150	deg C

Diode

○ : Implemented
 × : Not Implemented
 – : Not applicable

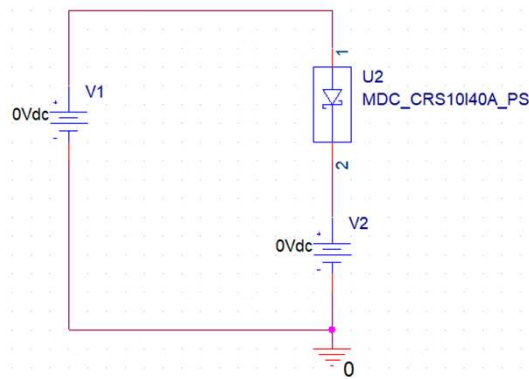
Model Functions Table

RANK=1

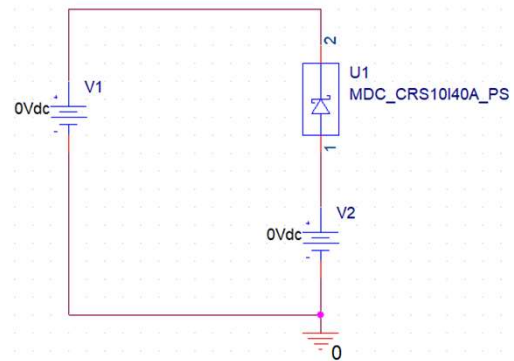
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	–
Rectification characteristics(Bridge)	1	–
Surge voltage-Transient	2	–

**IfVf[Temp], IrTemp[Vr] Testbench
Referred to Data Sheet**

IfVf[Temp]

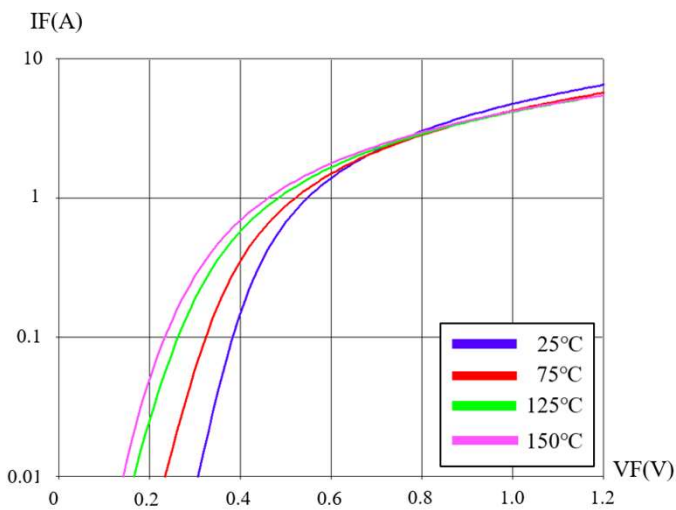


IrTemp[Vr]

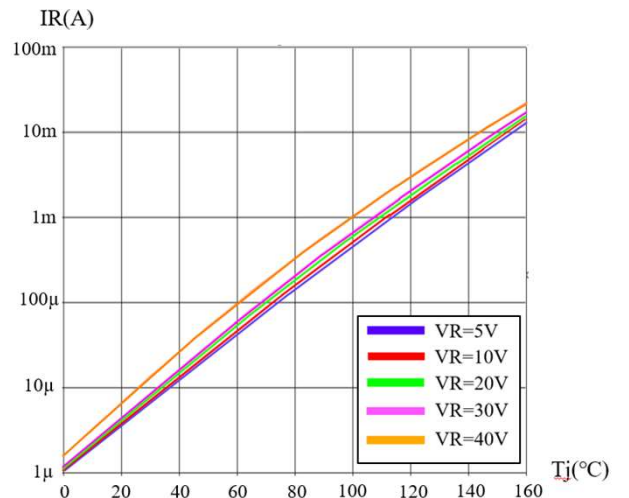


Simulation results are following.
Explanatory notes — : simulated

IfVf[Temp]



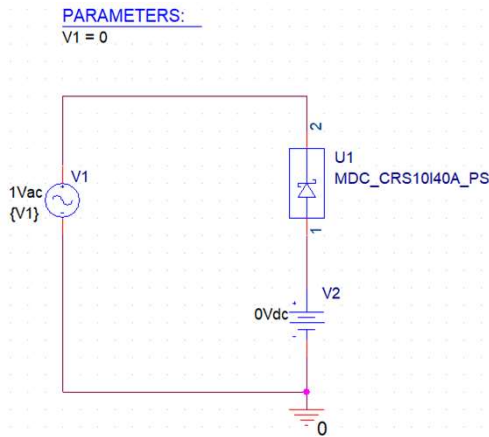
IrTemp[Vr]



CjVr Testbench

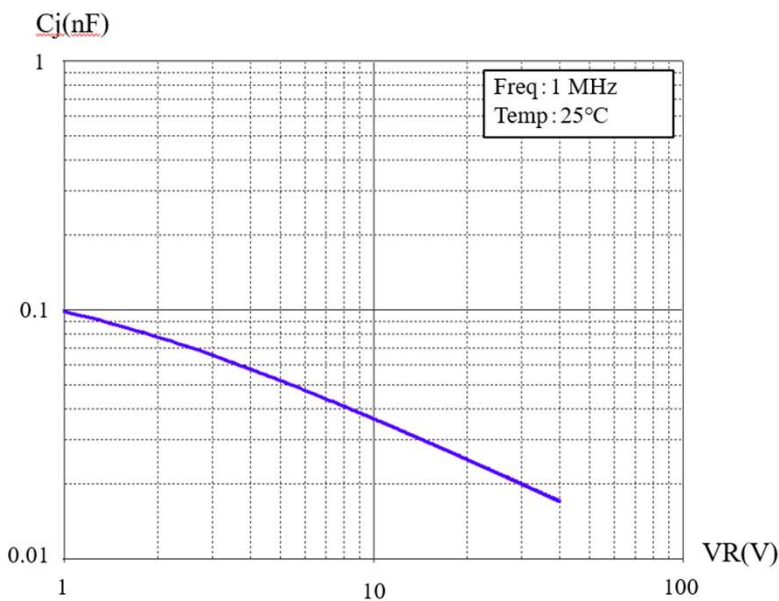
Referred to Data Sheet

CjVr



Simulation results are following.
Explanatory notes — : simulated

CjVr



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MoDeCH Inc.

Head Office

Location: 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:model-on-support@modech.co.jp

URL:<http://www.modech.com/en/>