PSpice Model
Varactor Diode
SANYO
SVC321D

Model Information

Model A macro model based on general SPICE diode model
Call Name MDC_SVC321D_PS
Pin Assign 1:A 2:C
File List Model Library MDC_SVC321D_PS.lib
Model Report MDC_SVC321D_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
- ●Product name SVC321D
- ●Company name SANYO Electric Co.,Ltd.

[Characteristics listed]
- ●Characteristics CjVr, QfacVr, NormCjTemp[Vr]

Simulation Range

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

Diode

○ : Implemented
× : Not Implemented
— : Not applicable

Model Functions Table

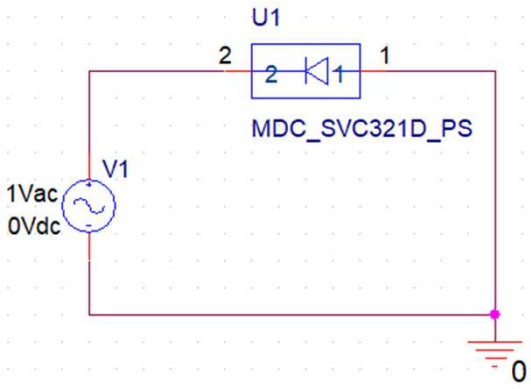
RANK=1

Functions	RANK	Implemented
CJ-VR	1	○
Qfac-VR	1	○
NormCj-Temp(Vr)	1	○

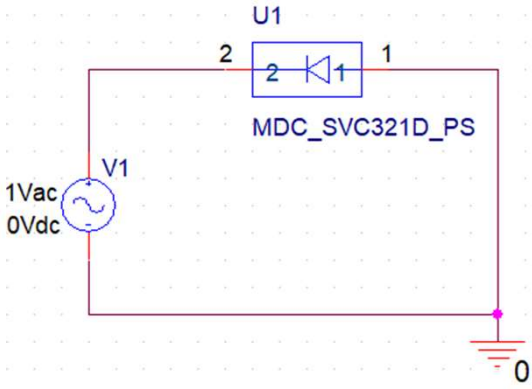
CjVr, QfacVr Testbench

Referred to Data Sheet

CjVr



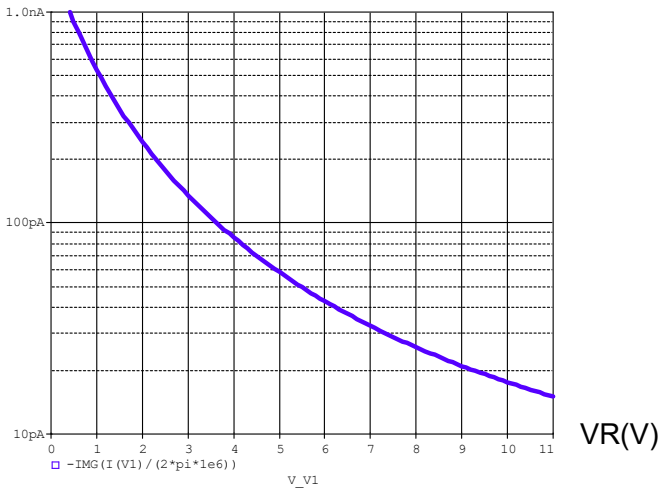
QfacVr



Simulation results are following.
Explanatory notes — : simulated

CjVr

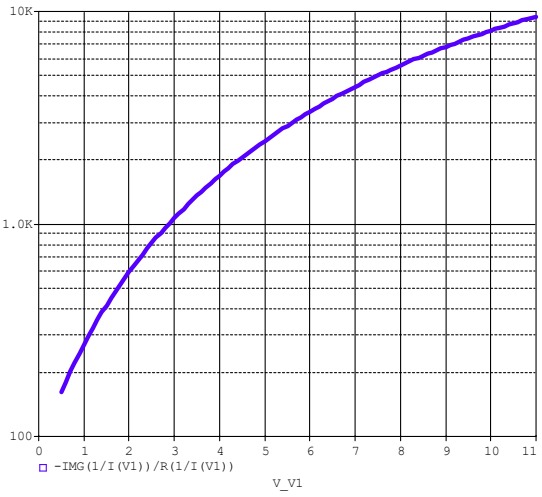
CJ(F) Freq. = 1 MHz



VR(V)

QfacVr

Q



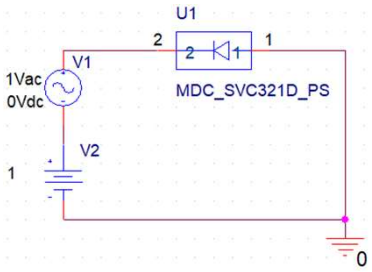
VR(V)

NormCjTemp[Vr] Testbench

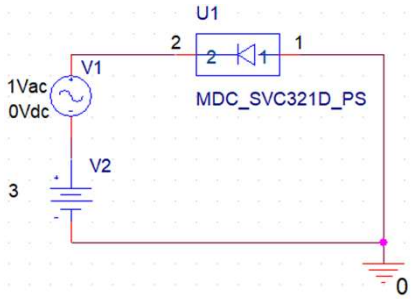
Referred to Data Sheet

NormCjTemp[Vr]

VR=1



VR=3



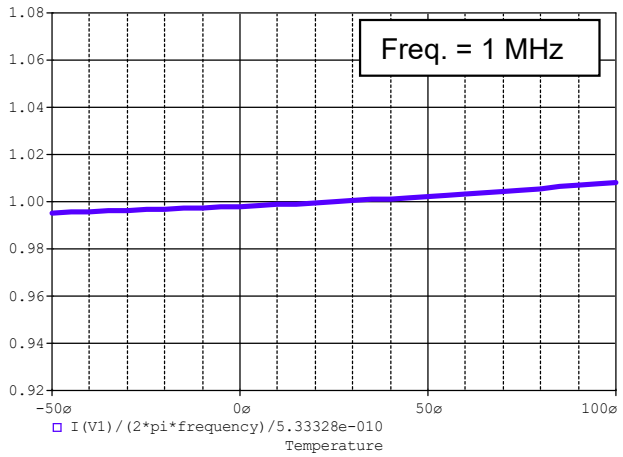
Simulation results are following.
Explanatory notes — : simulated

NormCjTemp[Vr]

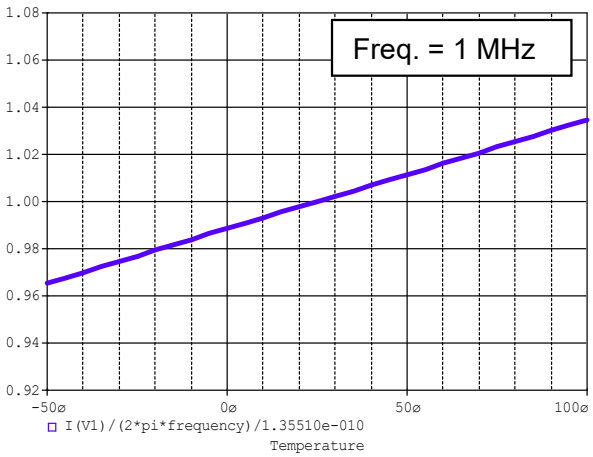
When VR=1 & Temp.=25℃,
then CJ=533.328pF

When VR=3 & Temp.=25℃,
then CJ=135.51pF

VR=1



VR=3

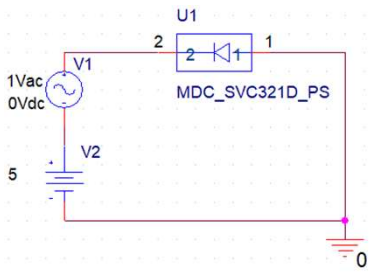


NormCjTemp[Vr] Testbench

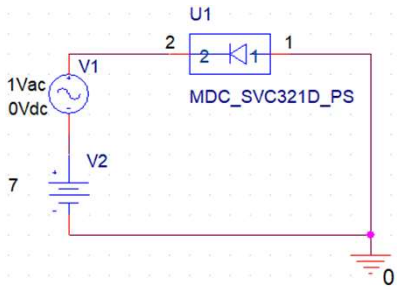
Referred to Data Sheet

NormCjTemp[Vr]

VR=5



VR=7



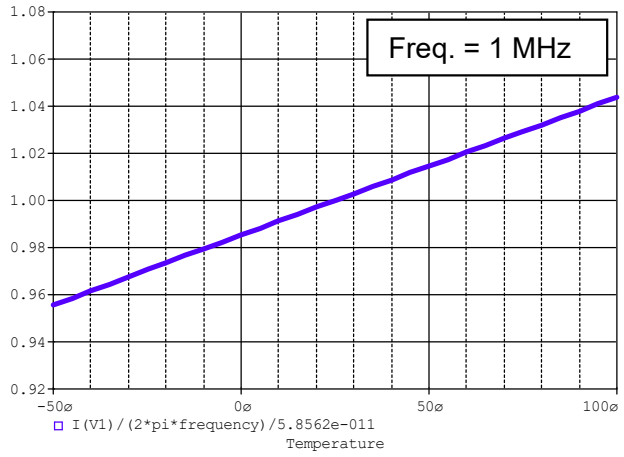
Simulation results are following.
Explanatory notes — : simulated

NormCjTemp[Vr]

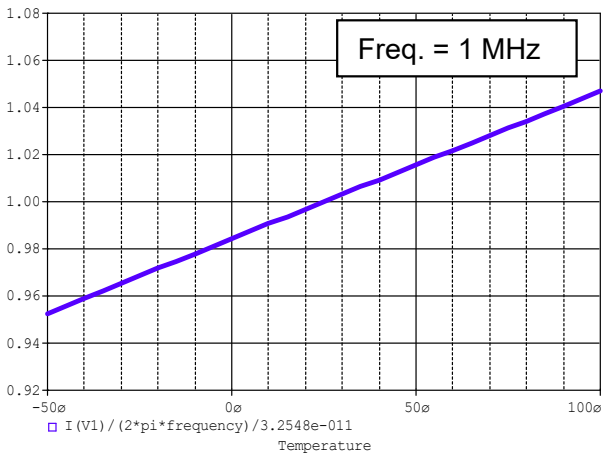
When VR=5 & Temp.=25℃,
then CJ=58.562pF

When VR=7 & Temp.=25℃,
then CJ=32.548pF

VR=5



VR=7



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