

PSpice Model

High Voltage Switching Diode

ON Swmiconductor

BAS21L

Model Information

Model A macro model based on PSPICE diode model
Call Name MDC_BAS21L_PS
Pin Assign 1:A 2:C
File List Model Library MDC_BAS21L_PS.lib
 Model Report MDC_BAS21L_PS.pdf

Verified Simulator Version

Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version November 2016
- Product name BAS21L
- Company name ON Swmiconductor

[Characteristics listed]

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

Simulation Condition

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

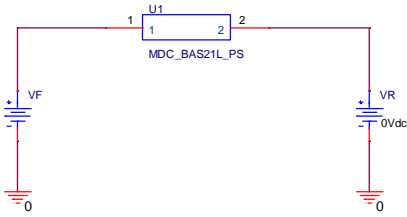
Model Functions Table

RANK=2

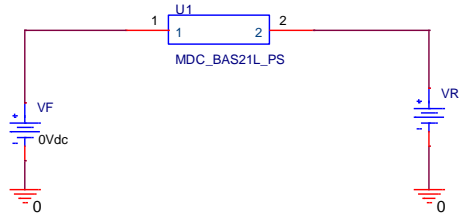
Functions	RANK	Implemented
IF-VF(Temp)	1	○
IR-VR(Temp)	1	○
Capacitance	1	○
Reverse recovery characteristics	1	○
Rectification characteristics(Bridge)	1	—
Surge voltage-Transient	2	—

Simulation results are following.
 Explanatory notes — : simulated

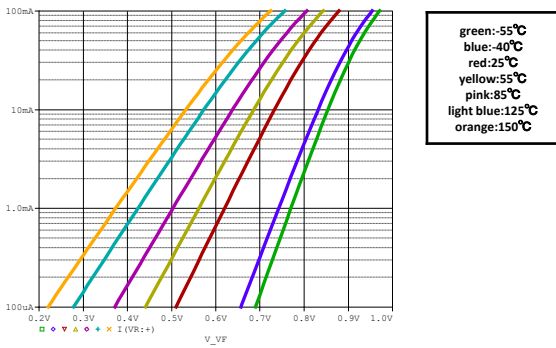
IfVf[Temp] Testbench



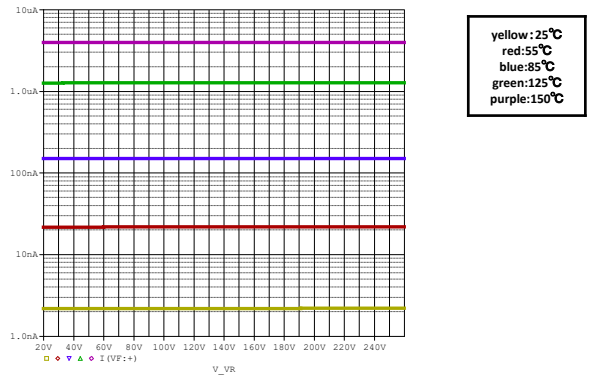
IrVr[Temp] Testbench



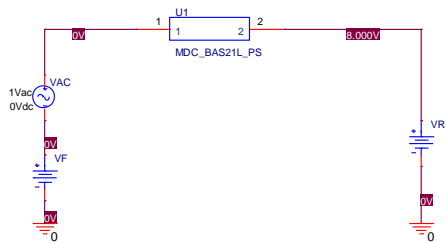
IfVf[Temp] Data Sheet



IrVr[Temp] Data sheet



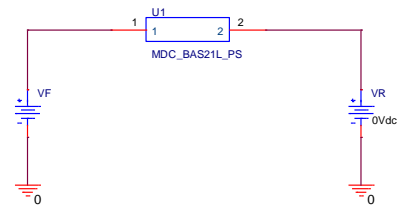
CjVr Testbench



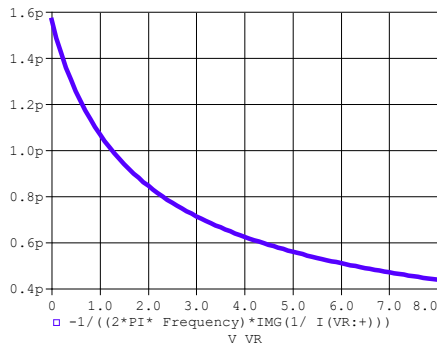
Trr Testbench

Trr=25.78495ns

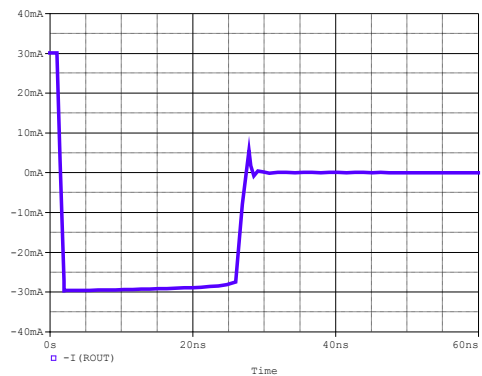
Characteristic	Symbol	MIN.	MAX.	UNIT
Reverse Recovery Time (If=I _r =30mAdc, I _r (REC)=3.0mAdc, R _L =100)	t _{rr}	-	50	ns



CjVr Data Sheet



Trr Data Sheet



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