

# LTspice Model

## Schottky Barrier Diodes

### ROHM

### RB160LP-40

#### Model Information

**Model** A macro model based on general SPICE diode model  
**Call Name** MDC\_RB160LP-40\_LT  
**Pin Assign** 1:A 2:C  
**File List** Model Library MDC\_RB160LP-40\_LT.lib  
 Model Report MDC\_RB160LP-40\_LT.pdf(this file)  
**Verified Simulator Version** LTspice XVII

#### Note

#### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version
- Product name RB160LP-40
- Company name ROHM

[Characteristics listed]

- Characteristics IfVf[Temp], IrVr[Temp], 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	0	to	40	V
Temperature	-25	to	150	deg C

Diode

○ : Implemented  
 × : Not Implemented  
 – : Not applicable

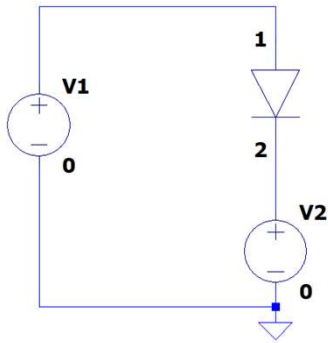
**Model Functions Table**

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	–

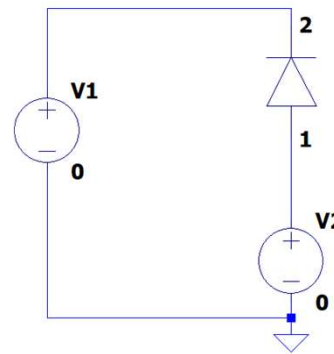
**IfVf[Temp], IrVr[Temp] Testbench  
Referred to Data Sheet**

**IfVf[Temp]**



```
.dc V1 0 0.6 0.005
.options TNOM=25
.TEMP -25 25 75 125 150
```

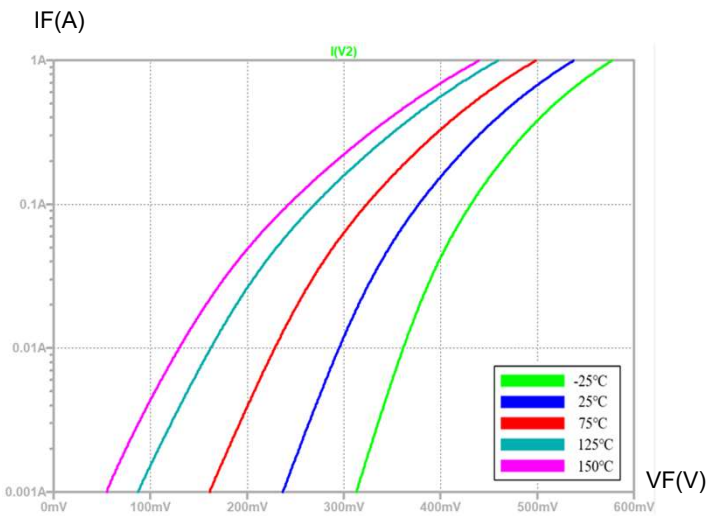
**IrVr[Temp]**



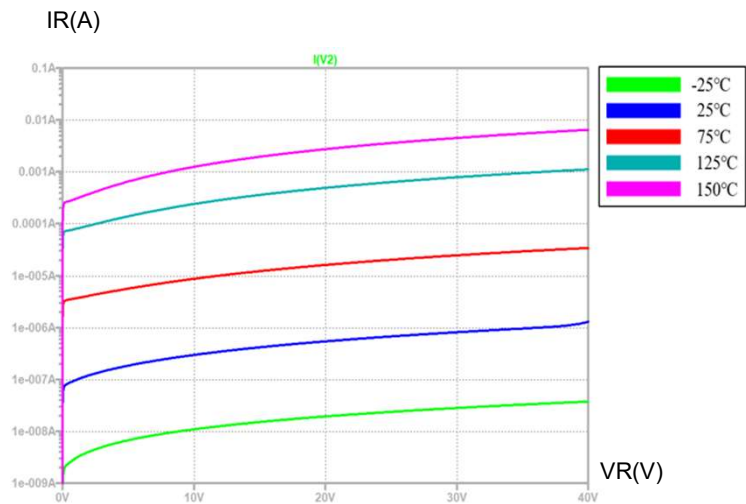
```
.dc V1 0 40 0.01
.options TNOM=25
.TEMP -25 25 75 125 150
```

Simulation results are following.  
Explanatory notes — : simulated

**IfVf[Temp]**



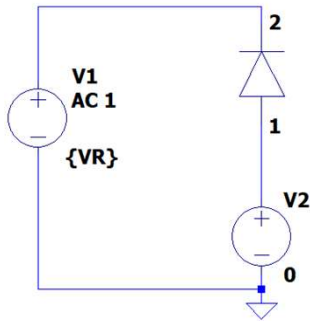
**IrVr[Temp]**



**CjVr Testbench**

**Referred to Data Sheet**

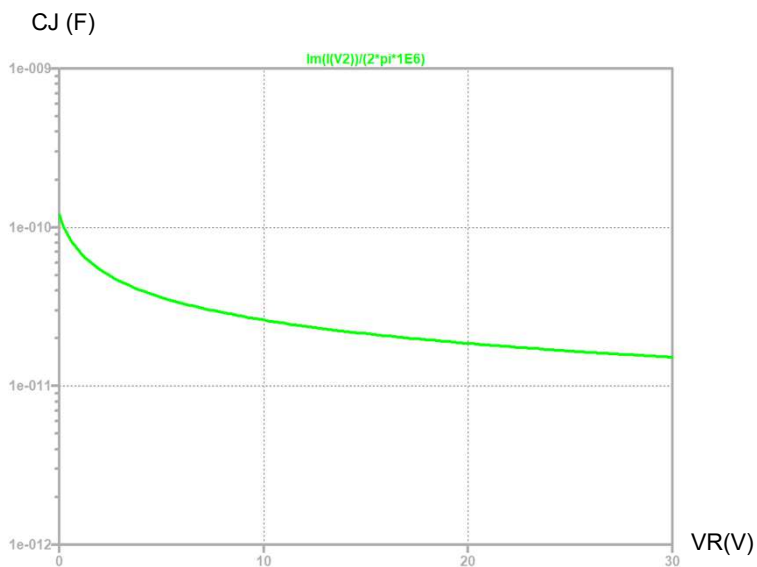
**CjVr**



```
.ac lin 1 1E6 1E6
.options TNOM=25
.TEMP 25
.step param VR 0 30 0.1
```

Simulation results are following.  
 Explanatory notes — : simulated

**CjVr**



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