

# Schottky Barrier Rectifier



## Features:

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## Mechanical Data:

Case	: JEDEC DO-27 molded plastic
Polarity	: Colour band denotes cathode
Weight	: 0.04 ounces , 1.1 grams
Mounting Position	: Any
Reverse Voltage	: 100 Volts
Forward Current	: 5 Amperes

## Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Values	Unit
Max. Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Max. RMS Voltage	$V_{RMS}$	70	
Max. DC Blocking Voltage	$V_{DC}$	100	
Max. Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_L = 95^\circ\text{C}$	$I_{(AV)}$	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150	
Peak Forward Voltage at 5A DC	$V_F$	0.85	V
Max. DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	$I_R$	1 50	$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	350	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	10	$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$		

## Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance junction to lead
3. The typical data above is for reference only

## Ratings and Characteristic Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

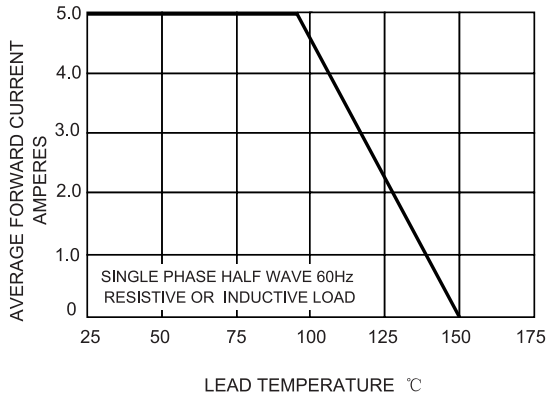


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

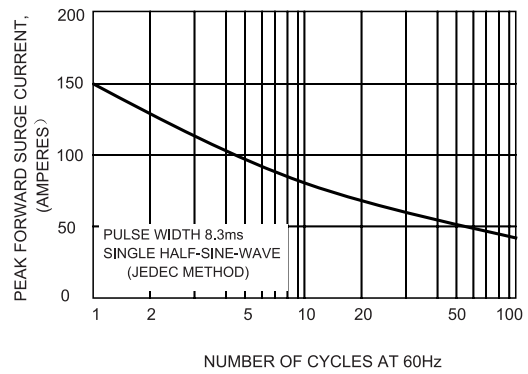


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

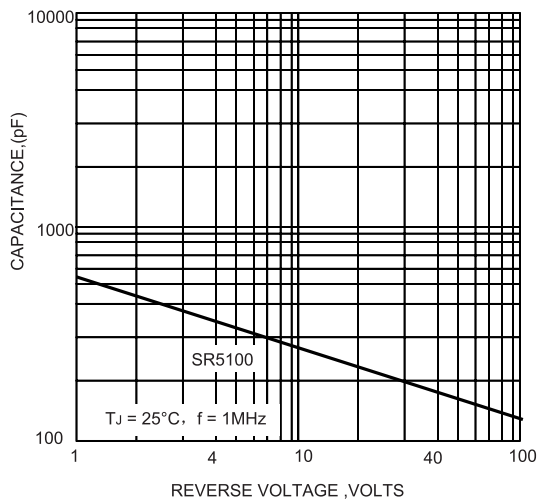


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

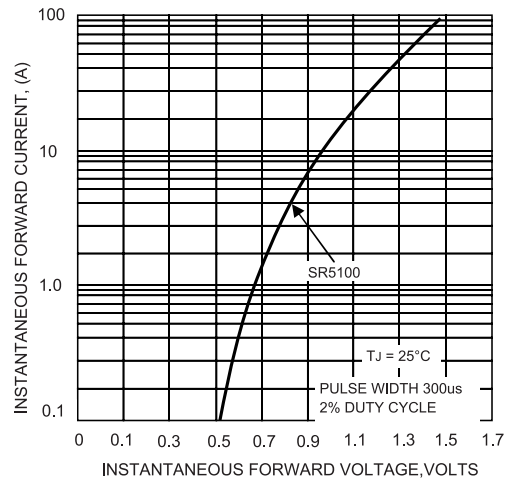
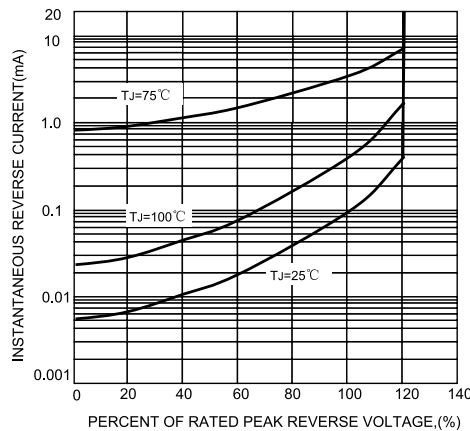


FIG. 5 - TYPICAL REVERSE

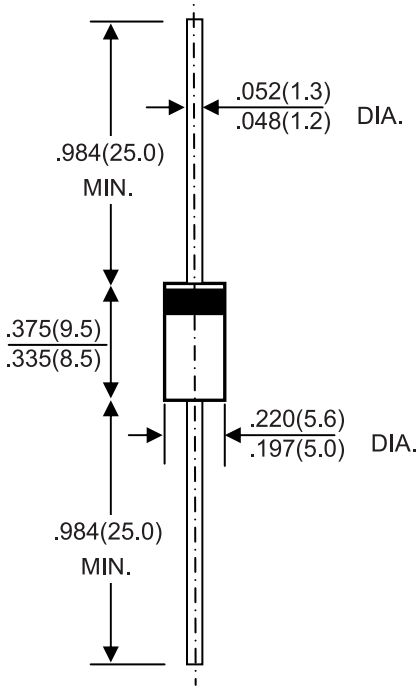


# Schottky Barrier Rectifier



## Dimensions:

**DO- 27**



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Schottky Barrier Rectifier	SR5100

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