

# Schottky Barrier Rectifier

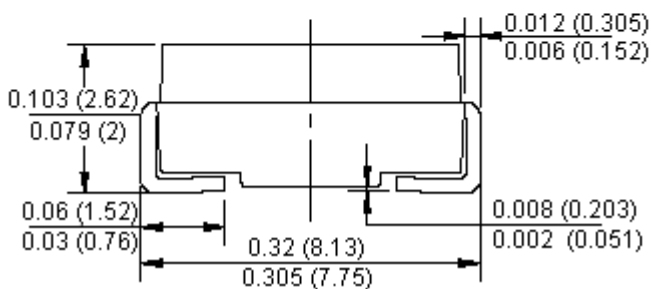
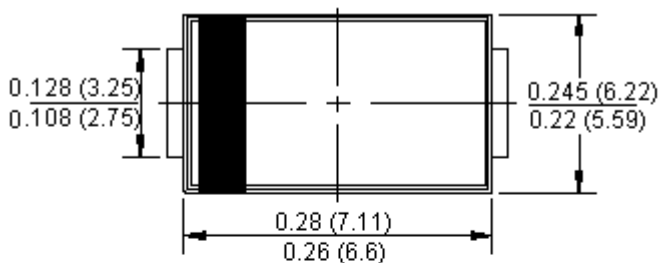


## Features:

- Surface mount.
- Metal-semiconductor junction with guard ring.
- Epitaxial construction.
- Low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Reverse Voltage - 40 V  
Forward Current - 5 Amperes

**SMC**



Dimensions : Inches (Millimetres)

## Mechanical Data

Case : Moulded plastic.  
Polarity : Colour band denotes cathode.  
Weight : 0.007 oz, 0.21 g.

# Schottky Barrier Rectifier



## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

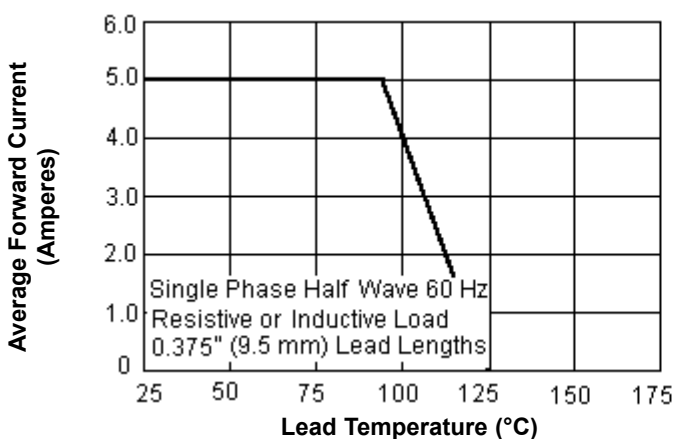
Characteristics	Symbol	SS54	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	
Maximum DC Blocking Voltage	$V_{DC}$	40	
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Lengths at $T_L = 95^\circ\text{C}$	$I_{(AV)}$	5	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	$I_{FSM}$	150	
Maximum Forward Voltage at 5 A dc	$V_F$	0.55	V
Maximum 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	mA
Typical Junction Capacitance (Note 1)	$C_J$	500	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15	$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	

Notes : 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.

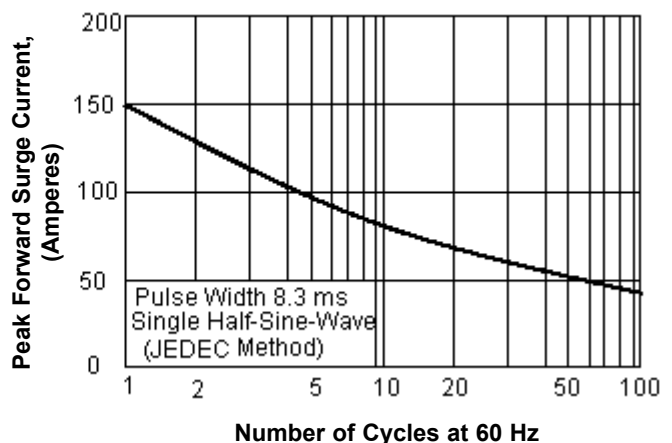
2. Thermal resistance junction to ambient.

## Rating and Characteristics Curves

Forward Current Derating Curve



Maximum Non-Repetitive Surge Current

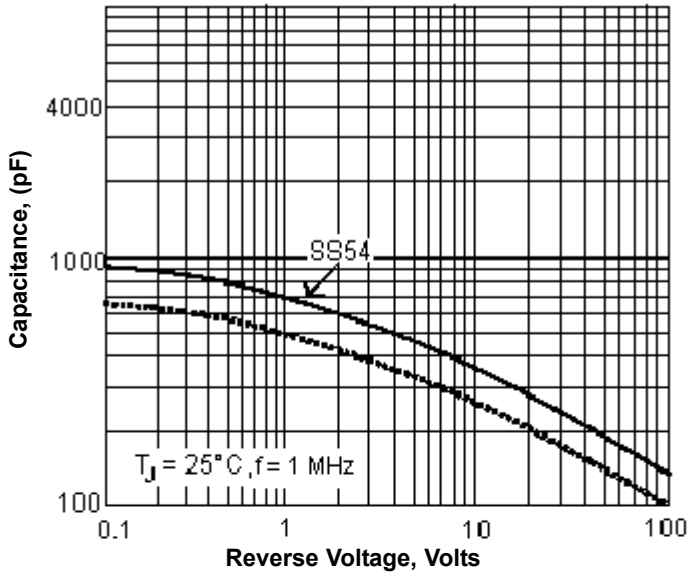


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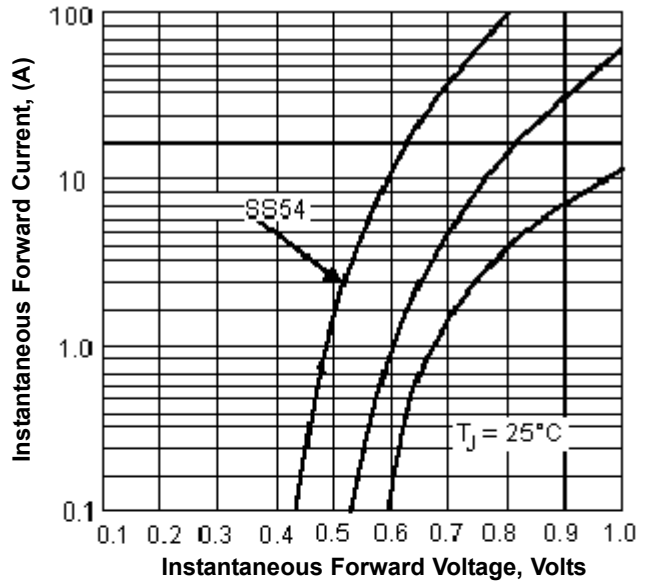


## Rating and Characteristics Curves

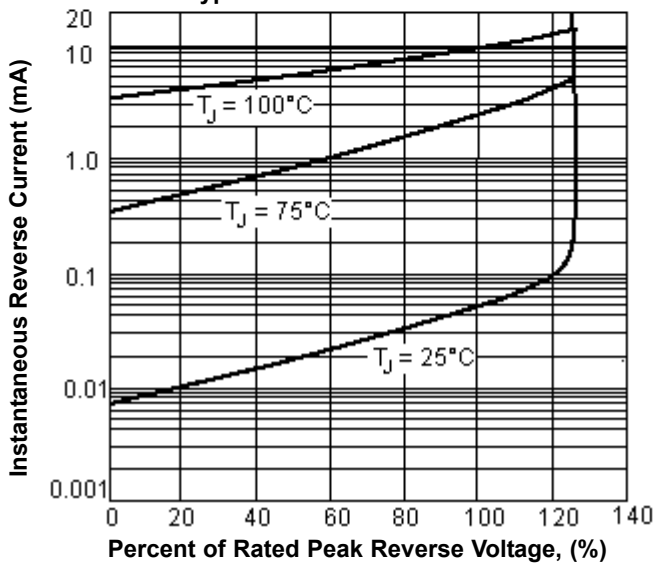
Typical Junction Capacitance



Typical Forward Characteristics



Typical Reverse Characteristics



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