

# Schottky Barrier Rectifier

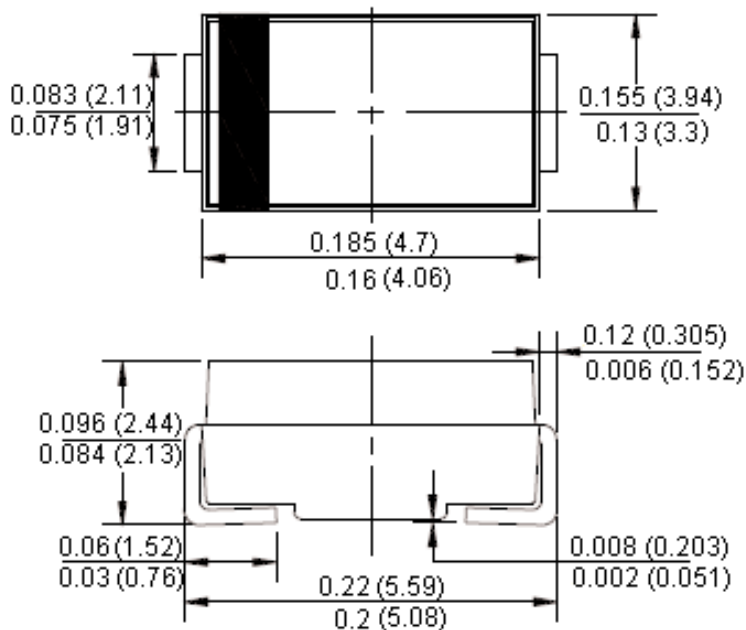


## Features:

- For surface mounted applications.
- Metal-Semiconductor junction with guarding.
- Epitaxial construction.
- Very low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Reverse Voltage - 30 V  
Forward Current - 1 Ampere

## SMB



Dimensions : Inches (Millimetres)

## Mechanical Data

Case : Moulded plastic.  
Polarity : Colour band denotes cathode.  
Weight : 0.003 oz, 0.093 g.  
Mounting position : Any.

# 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.

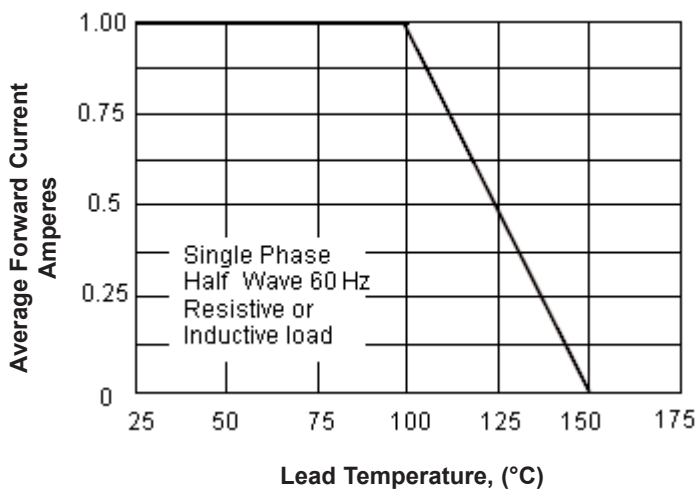
For capacitive load, derate current by 20%.

Characteristics	Symbol	SS13B	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30	V
Maximum RMS Voltage	$V_{RMS}$	21	
Maximum DC Blocking Voltage	$V_{DC}$	30	
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	$I_{FSM}$	40	
Maximum Forward Voltage at 1 A dc	$V_F$	0.55	V
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	$I_R$	1 10	mA
Typical Junction Capacitance (Note 1)	$C_J$	110	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20	$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$		

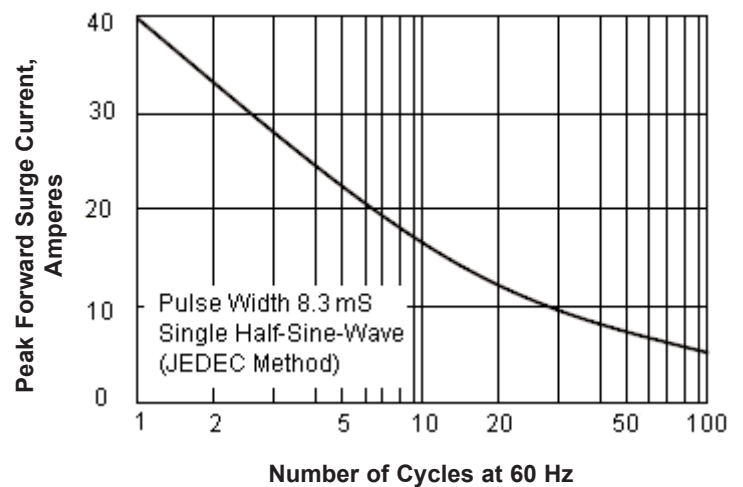
- Notes :** 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.  
2. Thermal resistance junction to lead.

## Rating and Characteristics Curves

Forward Current Derating Curve



Maximum Non-Repetitive Surge Current

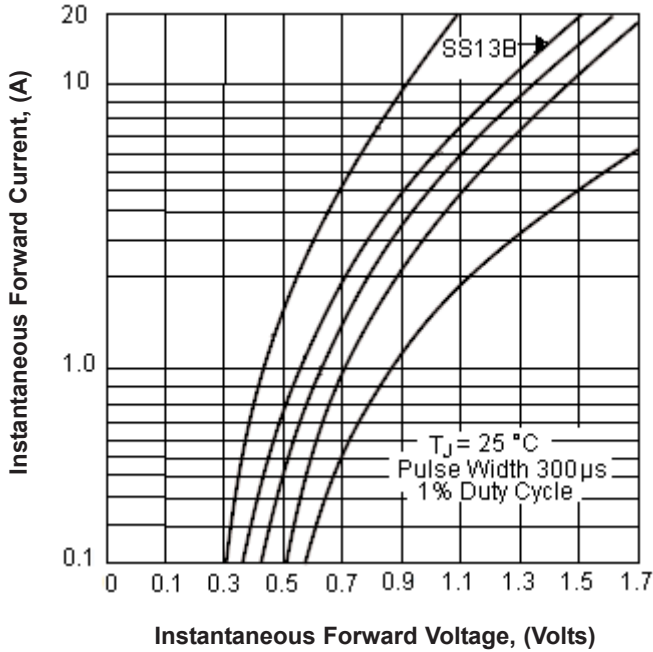


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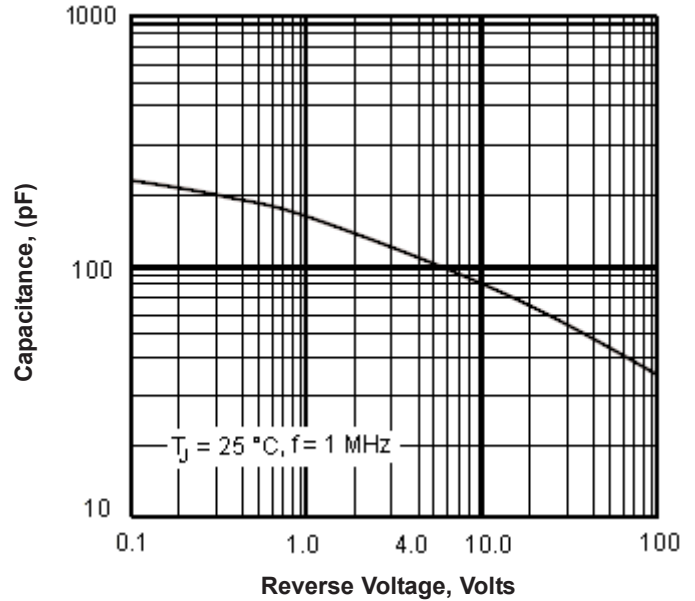


## Rating and Characteristics Curves

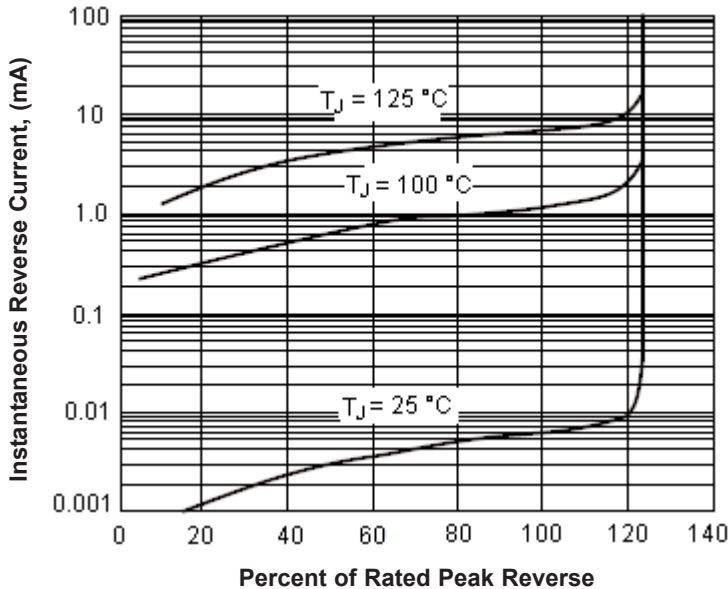
Typical Forward Characteristics



Typical Junction Capacitance



Typical Reverse Characteristics



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