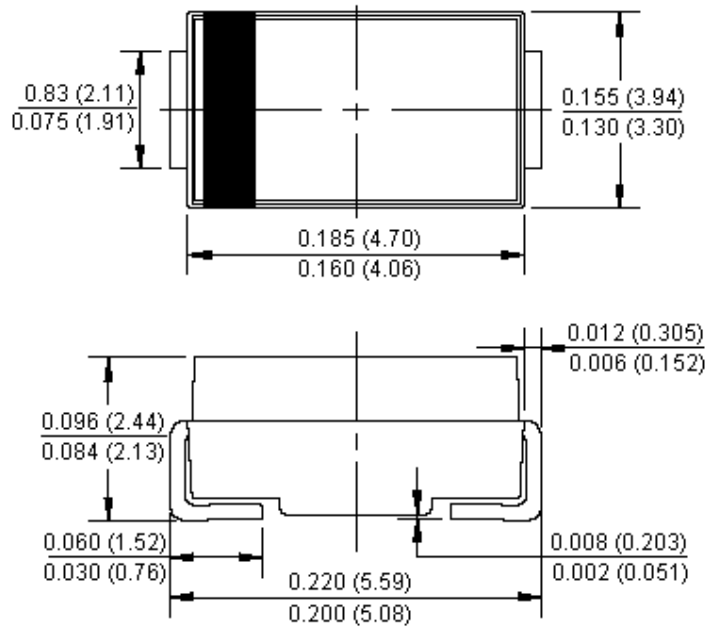


# Surface Mount Schottky Barrier Rectifiers



Reverse Voltage - 20 to 100 Volts  
Forward Current - 1.0 Amperes

**SMB**



Dimensions : Inches (Millimetres)

## Features:

- For surface mounted applications
- Metal-semiconductor junction with guarding
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

## Mechanical Data:

Case : Moulded plastic  
Polarity : Colour band denotes cathode  
Weight : 0.003 ounces, 0.093 grams  
Mounting position : Any

## 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%

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# Surface Mount Schottky Barrier Rectifiers



Characteristics	Symbol	SS12B	SS13B	SS110B	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	100	V
Maximum RMS Voltage	$V_{RMS}$	14	14	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	100	V
Maximum Average Forward Rectified Current @ $T_L=100^{\circ}C$	$I_{(AV)}$	1.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	$I_{FSM}$	40			A
Peak Forward Voltage at 1.0A DC	$V_F$	0.45	0.55	0.85	V
Maximum DC Reverse Current at Rated DC Bolcking Voltage @ $T_J=25^{\circ}C$ @ $T_J=100^{\circ}C$	$I_R$	1.0 10			mA
Typical Junction Capacitance (Note1)	$C_J$	110			pF
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	20			$^{\circ}C/W$
Operating Temperature Range	$T_J$	-55 to +150			$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150			$^{\circ}C$

## Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance junction to lead.

## Rating and Characteristic Curves

Figure 1 - Forward Current Derating Curve

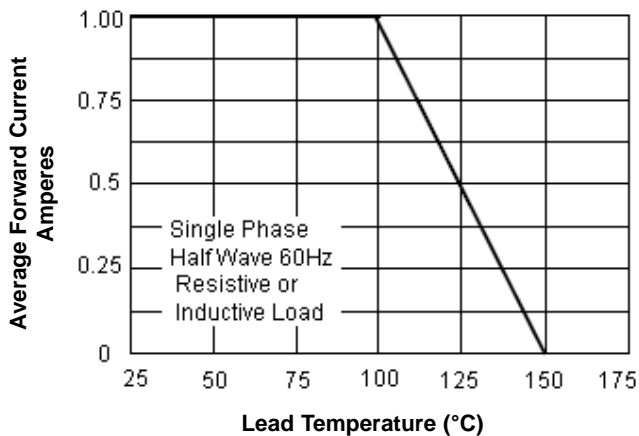
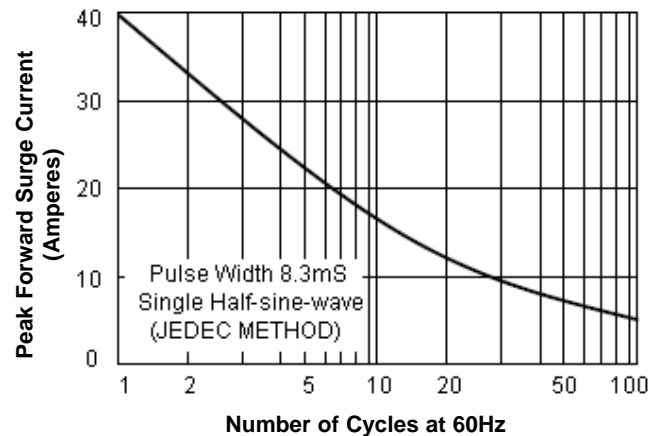


Figure 2 - Maximum Non-repetitive Surge Current



# Surface Mount Schottky Barrier Rectifiers



Figure 3 - Typical Forward Characteristics

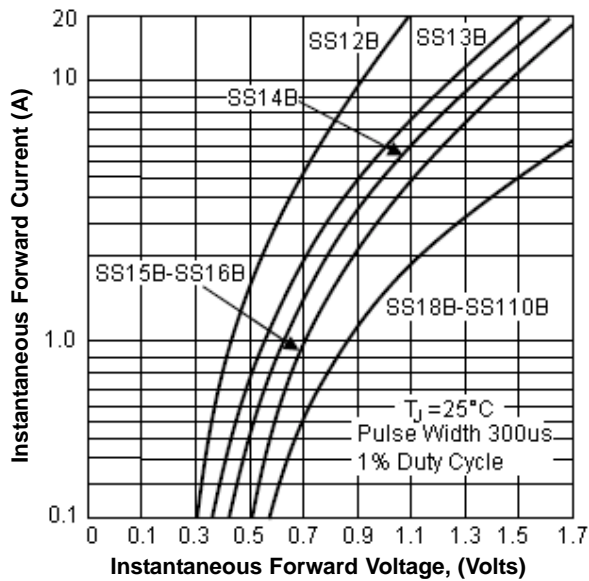


Figure 4 - Typical Junction Capacitance

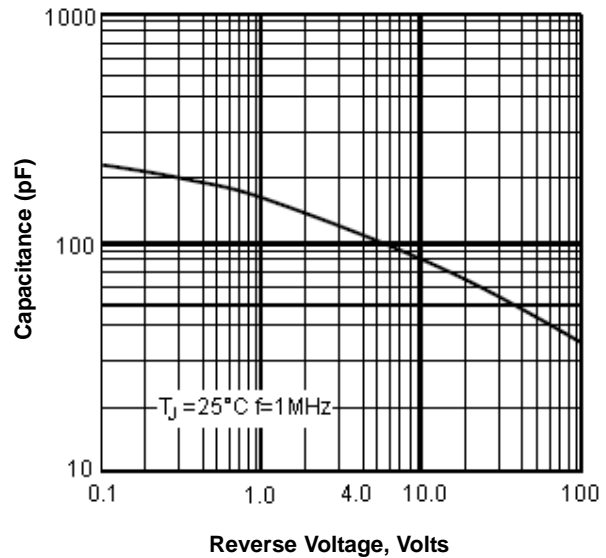
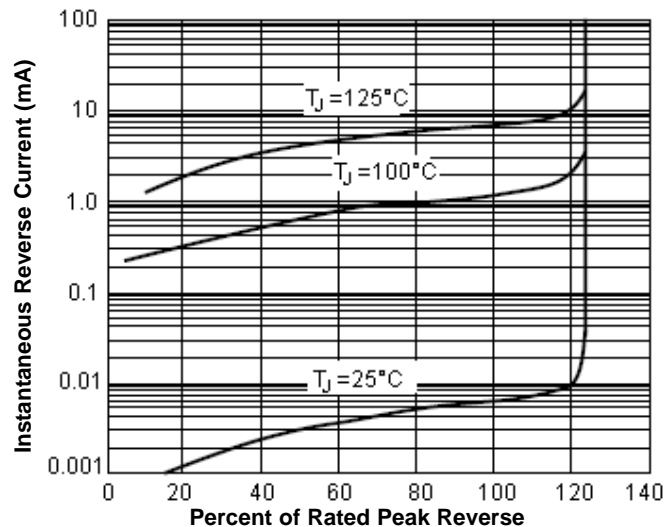


Figure 5 - Typical Reverse Characteristics



## Part Number Table

Description	Part Number
Surface Mount Schottky Barrier Rectifiers	SS110B
Surface Mount Schottky Barrier Rectifiers	SS12B
Surface Mount Schottky Barrier Rectifiers	SS13B

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