

# Surface Mount Schottky Barrier Rectifier



## 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	: Molded Plastic
Polarity	: Colour band denotes cathode
Weight	: 0.002 ounces, 0.053 grams
Reverse Voltage	: 20 to 100 Volts
Forward Current	: 1 Ampere

## 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%.

Type Number	Symbol	SS12	SS14	SS16	SS110	Unit
Max. Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	60	100	V
Max. RMS Voltage	$V_{RMS}$	14	28	42	70	
Max. DC Blocking Voltage	$V_{DC}$	20	40	60	100	
Max. Average Forward Rectified Current $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1.0				A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30				
Peak Forward Voltage at 1A DC	$V_F$	0.55	0.7	0.85		V
Max. DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 125^\circ\text{C}$	$I_R$	1 10				$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	110				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20				$^\circ\text{C/W}$
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

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## Ratings and Characteristic Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

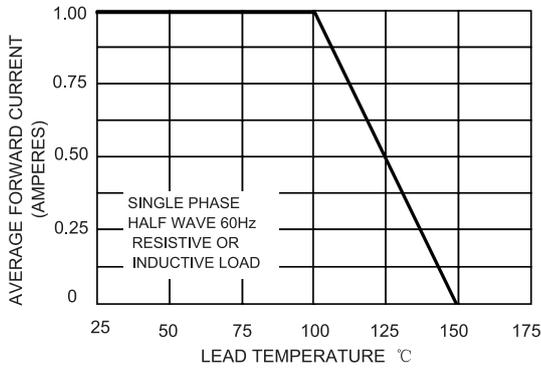


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

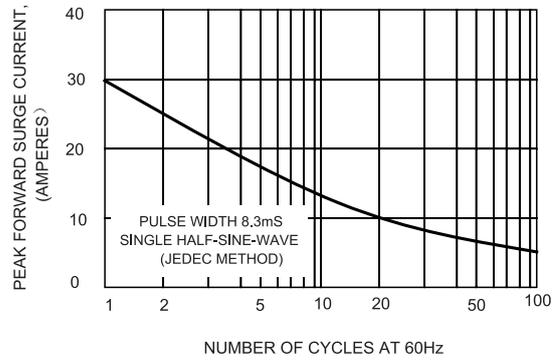


FIG.3-TYPICAL FORWARD CHARACTERISTICS

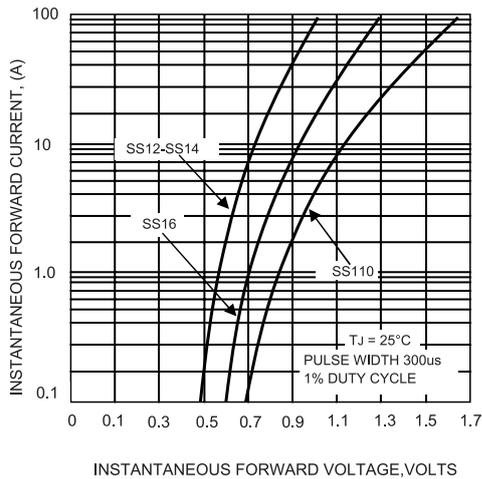


FIG.4-TYPICAL JUNCTION CAPACITANCE

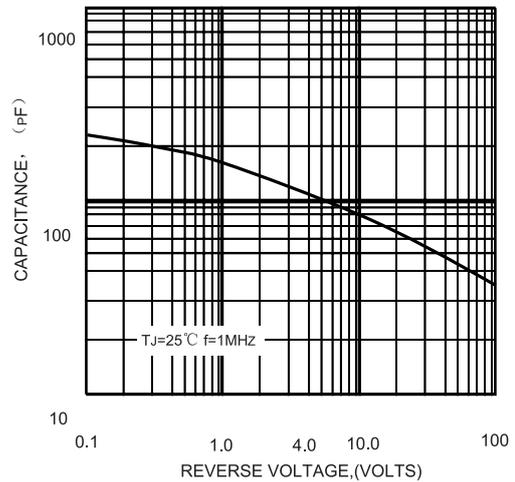
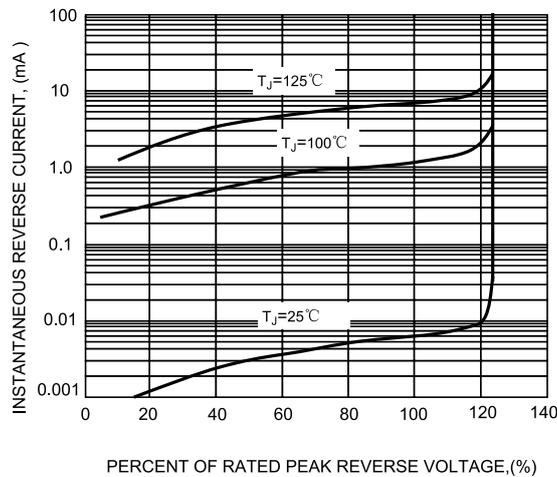


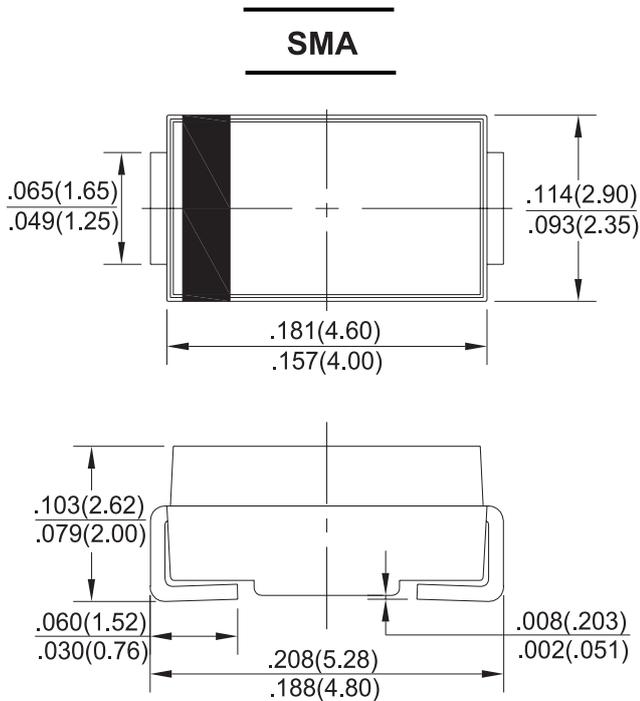
FIG.5-TYPICAL REVERSE CHARACTERISTICS



# Surface Mount Schottky Barrier Rectifier



## Dimensions:



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Surface Mount Schottky Barrier Rectifiers	SS12
	SS14
	SS16
	SS110

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