



## Features

- Metal-semiconductor junction with guarding
- Epitaxial construction
- 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

## Specifications

Reverse Voltage : 40V  
Forward Current : 5 Amperes  
Case : Moulded plastic.  
Polarity : Colour band denotes cathode.  
Weight : 0.007 oz, 0.21 g.

## 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	Values	Unit
Max. Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	V
Max. RMS Voltage	V <sub>RMS</sub>	28	
Max. DC Blocking Voltage	V <sub>DC</sub>	40	
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths at T <sub>L</sub> = 95°C	I <sub>(AV)</sub>	5	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150	
Max. Forward Voltage at 5A DC	V <sub>F</sub>	0.55	V
Max. DC Reverse Current at T <sub>J</sub> = 25°C Rated DC Blocking Voltage at T <sub>J</sub> = 100°C	I <sub>R</sub>	1 50	mA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	500	pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	15	°C / W
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	

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

## Rating and Characteristics Curves

Figure 1 - Forward Current Derating Curve

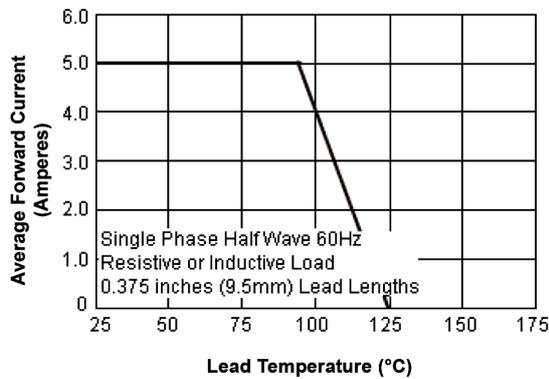
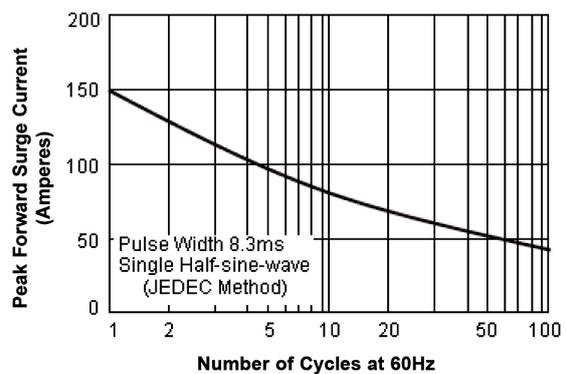
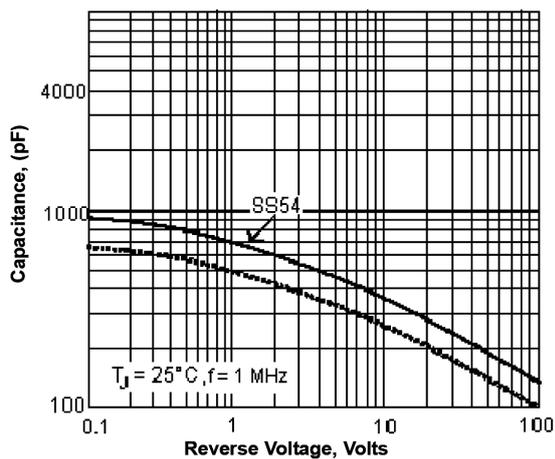


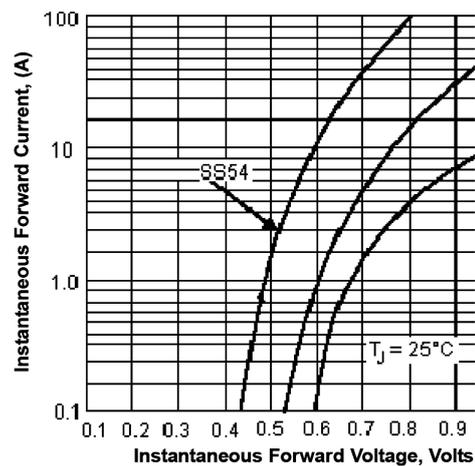
Figure 2 - Maximum Non-repetitive Surge Current



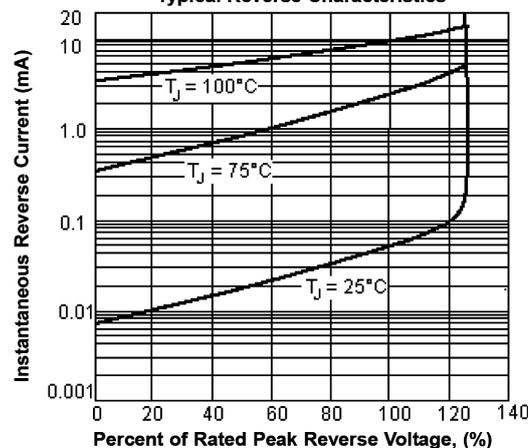
Typical Junction Capacitance



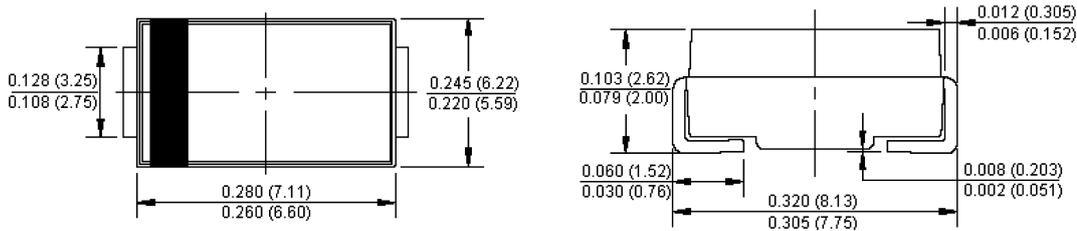
Typical Forward Characteristics



Typical Reverse Characteristics



## DO-214AB (SMC)



Dimensions : Millimetres

### Part Number Table

Description	Part Number
Schottky Rectifier, 40V, 5A, Single, DO-214AB (SMC)	SS54

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