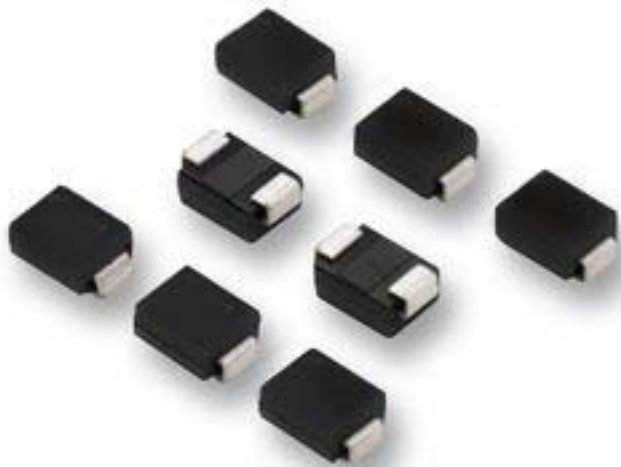


Schottky Barrier Rectifier

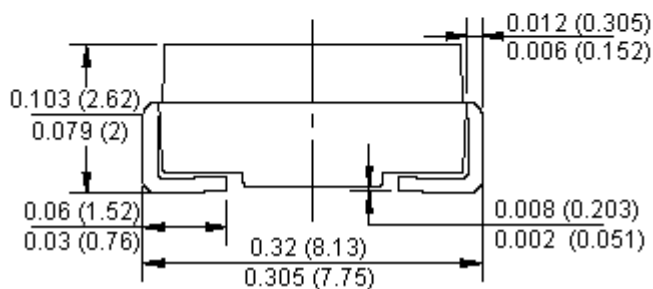
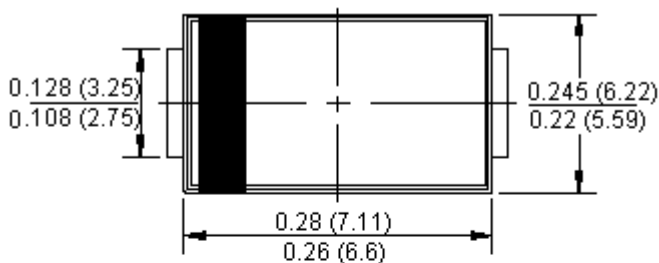


Features:

- 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%.

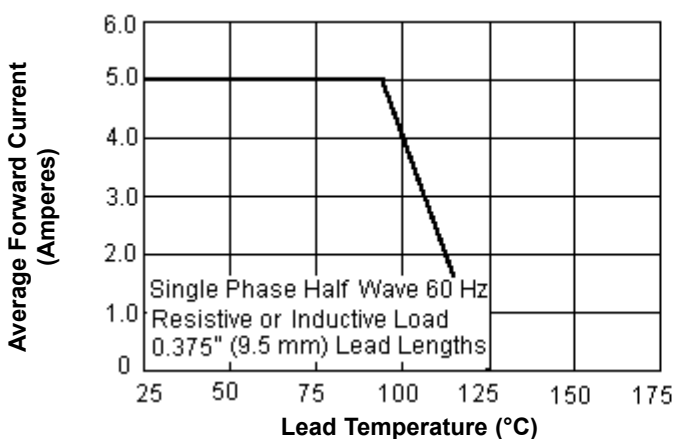
Characteristics	Symbol	SS54	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	
Maximum DC Blocking Voltage	V_{DC}	40	
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Lengths at $T_L = 95^\circ\text{C}$	$I_{(AV)}$	5	A
Peak Forward Surge Current 8.3 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	$^\circ\text{C/W}$
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.

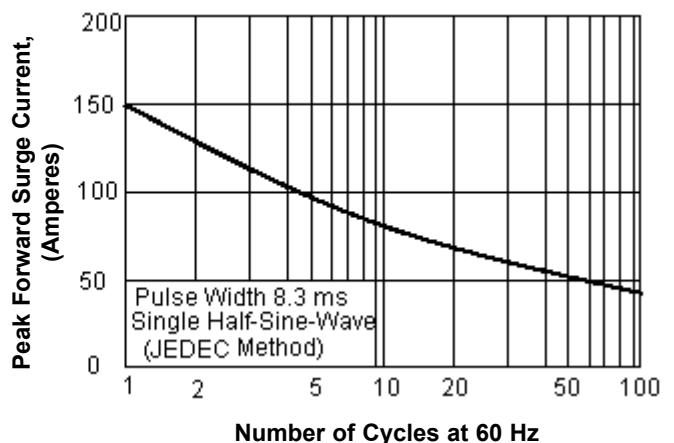
2. Thermal resistance junction to ambient.

Rating and Characteristics Curves

Forward Current Derating Curve



Maximum Non-Repetitive Surge Current

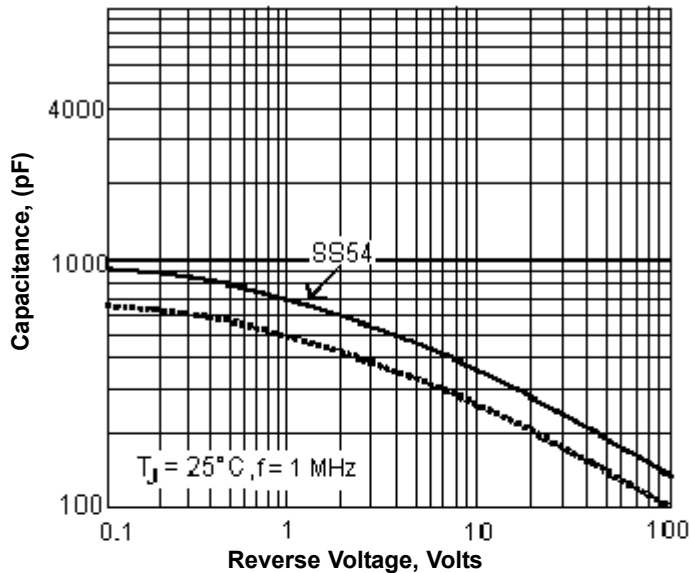


Schottky Barrier Rectifier

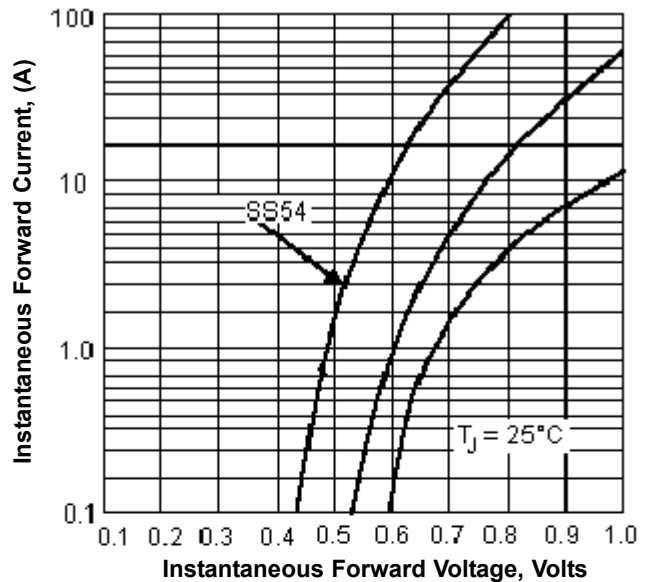


Rating and Characteristics Curves

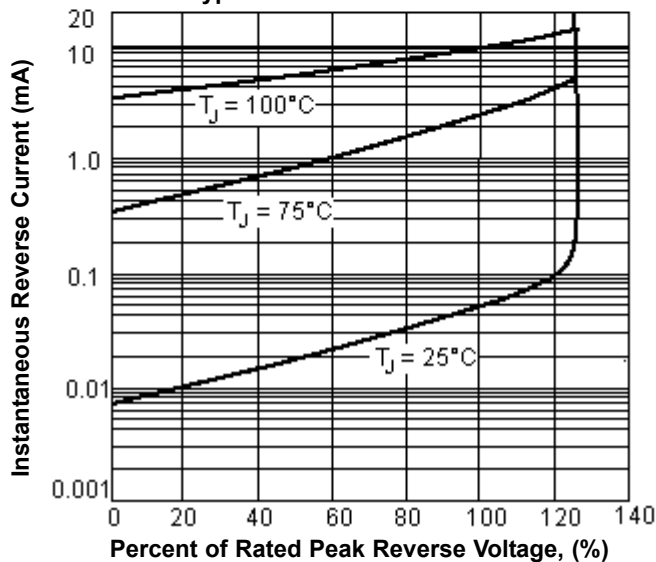
Typical Junction Capacitance



Typical Forward Characteristics



Typical Reverse Characteristics



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