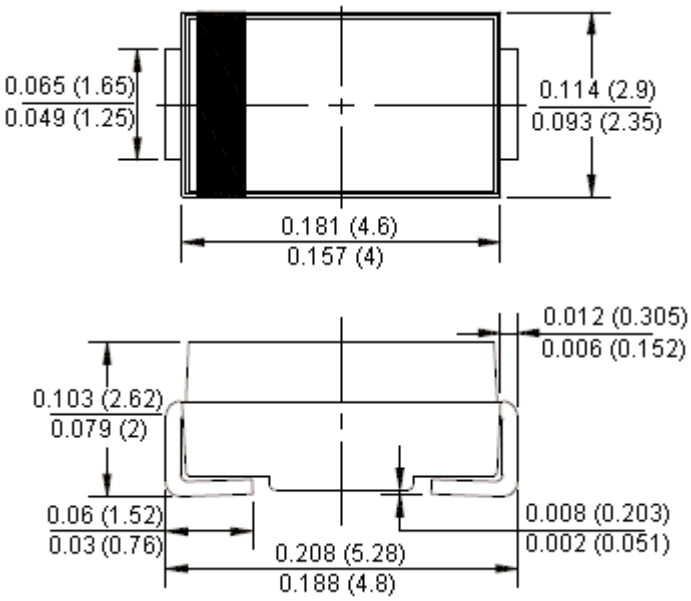
Schottky Barrier Rectifier

Reverse Voltage - 20 V
Forward Current - 1 Ampere

SMA



Dimensions : Inches (Millimetres)

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.

Mechanical Data

Case : Moulded plastic.
Polarity : Indicated by cathode band.
Weight : 0.002 oz, 0.053 g.

Maximum Ratings and Electrical Characteristics

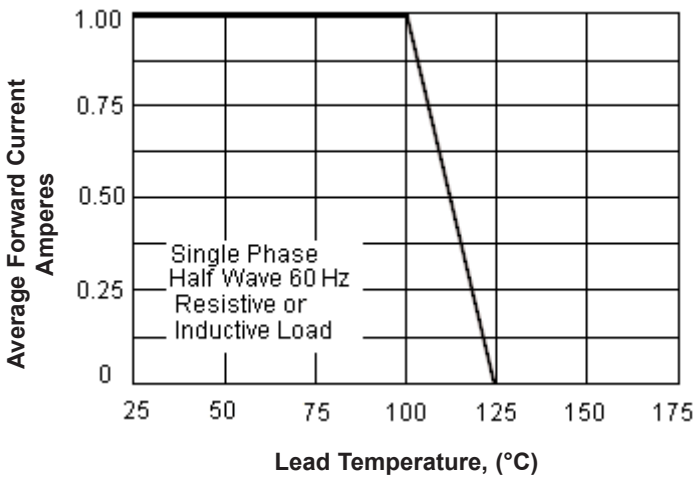
Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	SS12	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	V
Maximum RMS Voltage	V_{RMS}	14	
Maximum DC Blocking Voltage	V_{DC}	20	
Maximum Average Forward Rectified Current at T_L = 100°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°C at Rated DC Blocking Voltage at T_J = 100°C	I_R	1 10	mA
Typical Junction Capacitance (Note 1)	C_J	110	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20	°C/W
Operating Temperature Range	T_J	-55 to + 125	°C
Storage Temperature Range	T_{STG}	-55 to + 150	

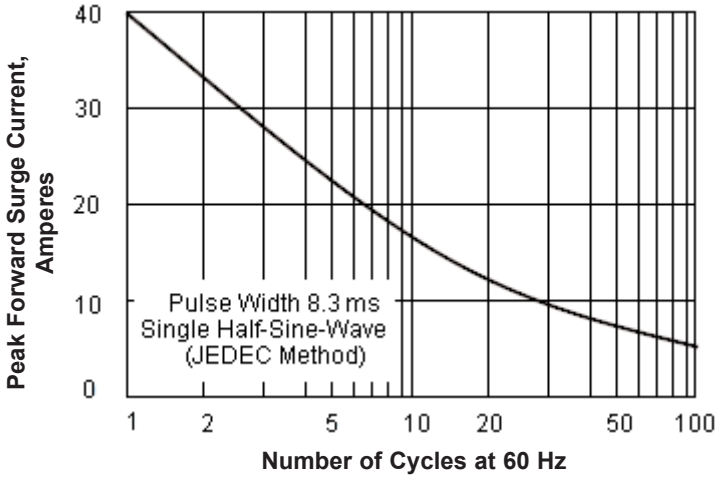
Notes : 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.
2. Thermal resistance junction to lead.

Rating and Characteristics Curves

Forward Current Derating Curve

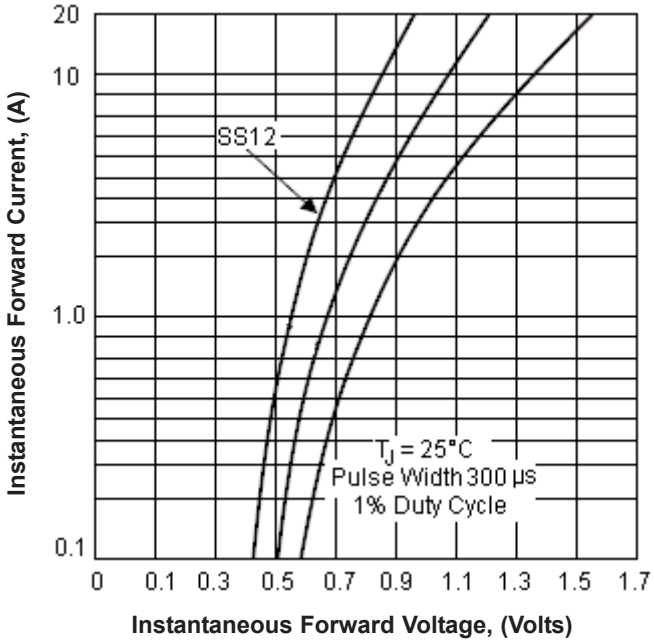


Maximum Non-Repetitive Surge Current

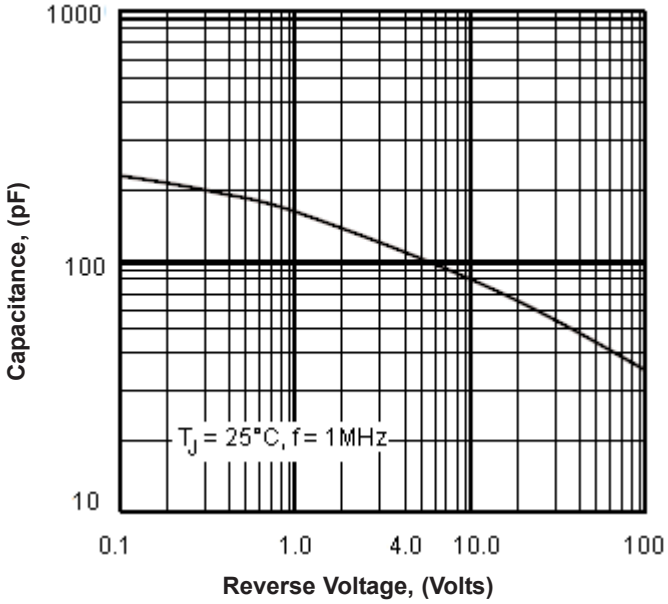


Rating and Characteristics Curves

Typical Forward Characteristics



Typical Junction Capacitance



Typical Reverse Characteristics