

Schottky Barrier Rectifiers

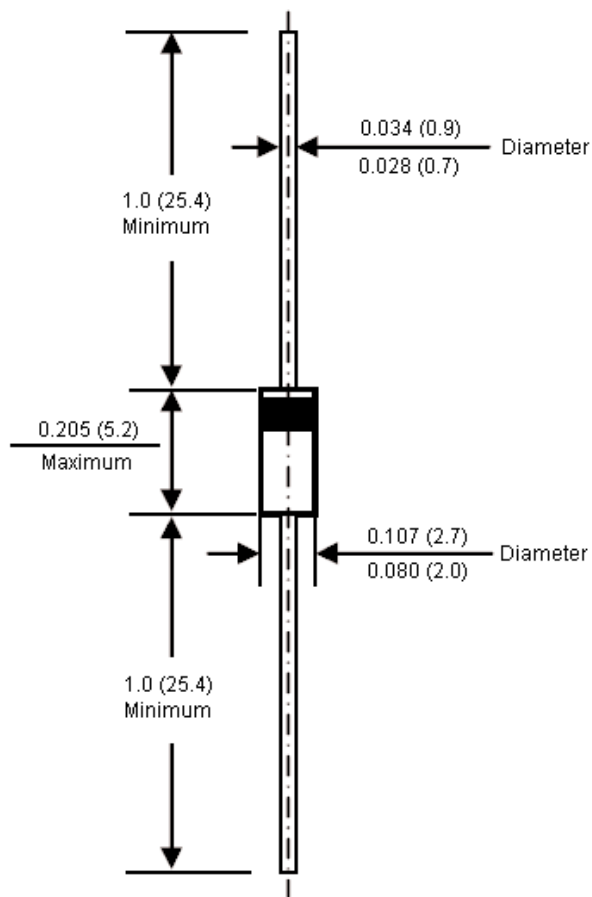


Reverse Voltage - 20 to 100 Volts
Forward Current - 1.0 Amperes

DO-41

Features:

- Metal-semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- For use in low vlotage, high frequency inverters, free wheeling and polarity protection applications



Dimensions : Inches (Millimetres)

Mechanical Data:

Case : JEDEC DO-41 moulded plastic
Polarity : Colour band denotes cathode
Weight : 0.012 ounces, 0.34 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%

Schottky Barrier Rectifiers



Characteristics	Symbol	SR150	SR160	SR1100	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	60	100	V
Maximum RMS Voltage	V_{RMS}	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	50	60	100	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_L=100^{\circ}C$	$I_{(AV)}$	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	0.7		0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^{\circ}C$ @ $T_J=100^{\circ}C$	I_R	1.0			mA
		10			
Typical Junction Capacitance (Note1)	C_J	80			pF
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	15			$^{\circ}C/W$
Operating Temperature Range	T_J	-55 to +125			$^{\circ}C$
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

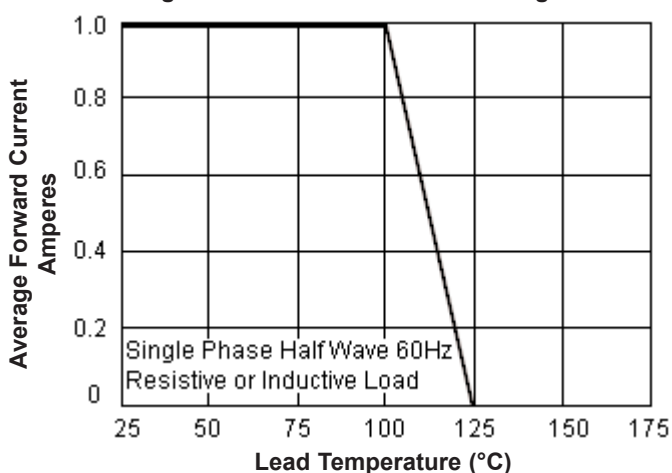


Figure 2 - Maximum Non-repetitive Surge Current

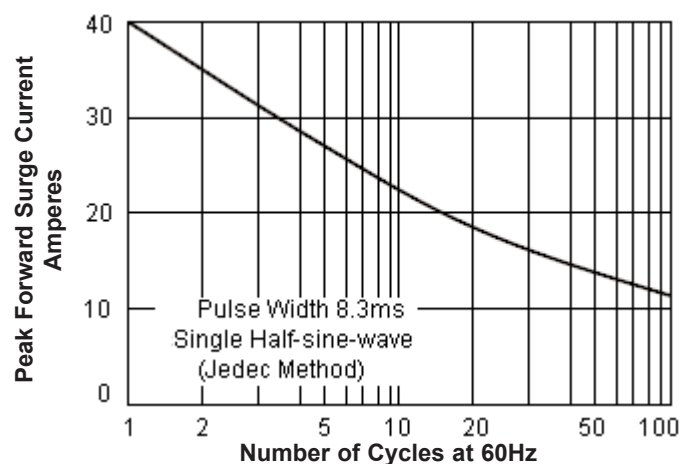


Figure 3 - Typical Junction Capacitance

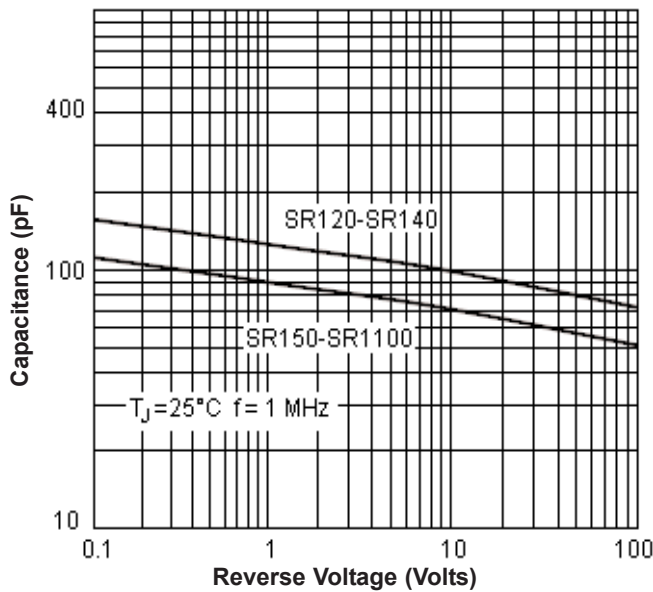


Figure 4 - Typical Forward Characteristics

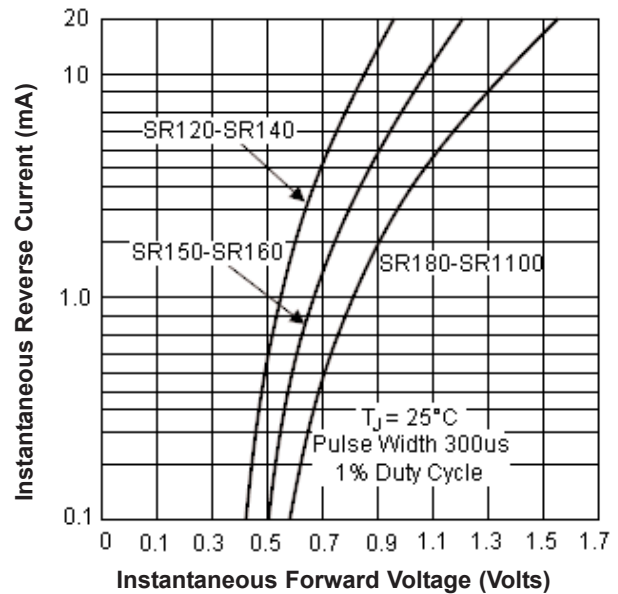
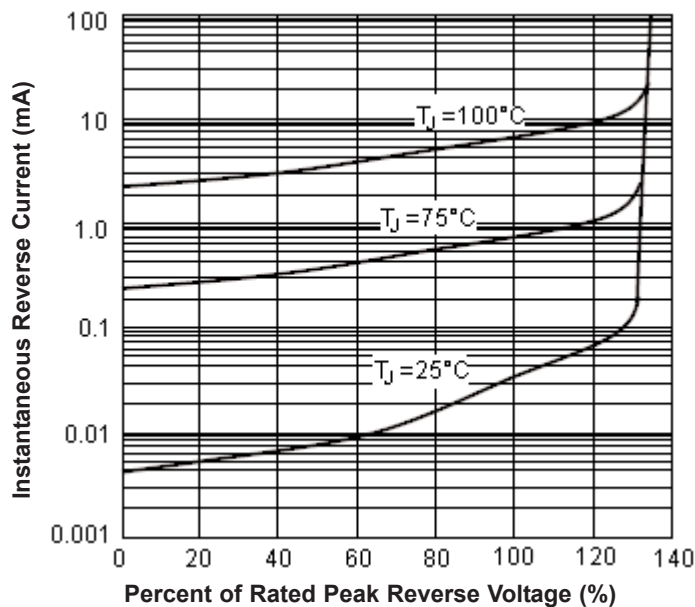


Figure 5 - Typical Reverse Characteristics



Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	SR1100
Schottky Barrier Rectifiers	SR150
Schottky Barrier Rectifiers	SR160

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