



PFC Device Corporation

SR5100H

5A 100V Schottky Rectifier

Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	5	A
V_{RRM}	100	V
T_J Operating Junction Temperature	-55 to +150	°C

Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications



1. Characteristics

Maximum Ratings Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Rating at 25C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbol	SR5100H	Units
Maximum DC blocking Voltage	V_{DC}	100	Volts
Maximum Working Peak Reverse Voltage	V_{RWM}		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}		
Maximum RMS Voltage	V_{RMS}	70	
Maximum Average Forward Rectified Current 0.375*(9.5mm)lead length (See Figure 1)	I_o	5	Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	Amps
Maximum instantaneous Forward Voltage at I_o	$V_F^{(3)}$	0.85	Volts
Maximum DC reverse current $T_J=25^\circ\text{C}$	$I_R^{(3)}$	0.5	mA
Maximum DC reverse current $T_J=100^\circ\text{C}$	$I_R^{(3)}$	50	mA
Typical Junction Capacitance (NOTE 1)	C_J	200	pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	30	$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	- 55 to +150	$^\circ\text{C}$
Storage Junction Temperature	T_{STG}	- 55 to +150	

NOTE: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

NOTE: 2. Both leads attached to heatsink 20x20x1t (mm) copper plate at lead length 5mm.

NOTE: 3. Pulse width < 300 uS, Duty cycle < 2%



2. Characteristics Curves

Ratings and Characteristics Curves

($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

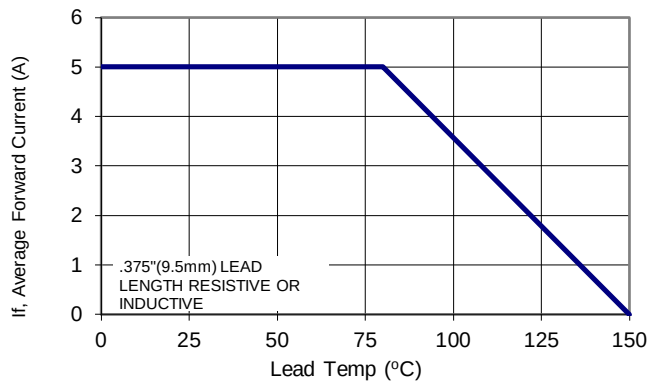


Figure 1: Current Derating, Case

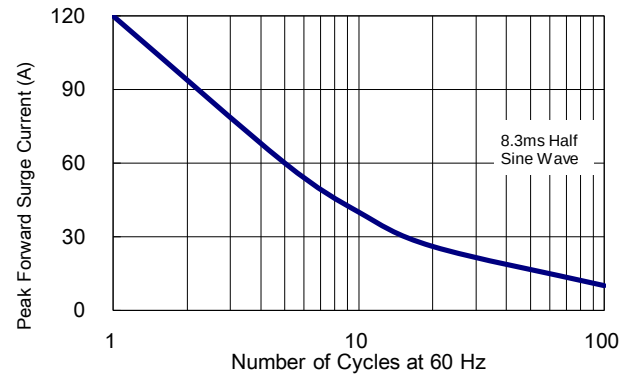


Figure 2: Maximum Repetitive Surge Current

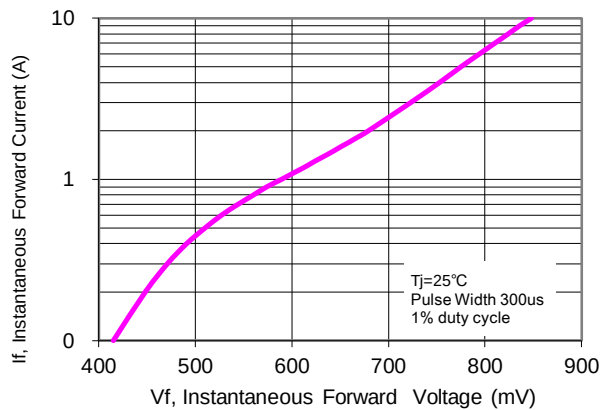


Figure 3: Typical Forward Voltage

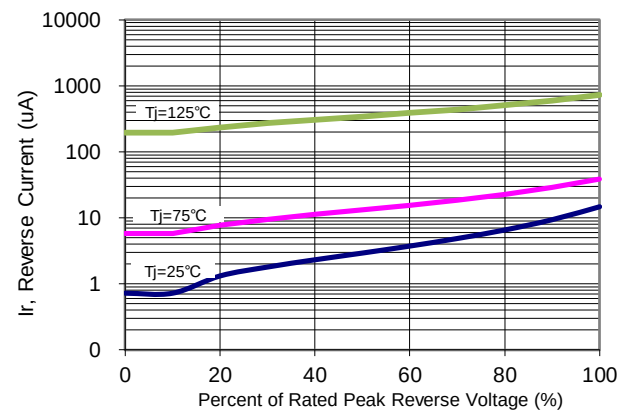


Figure 4: Typical Reverse Current

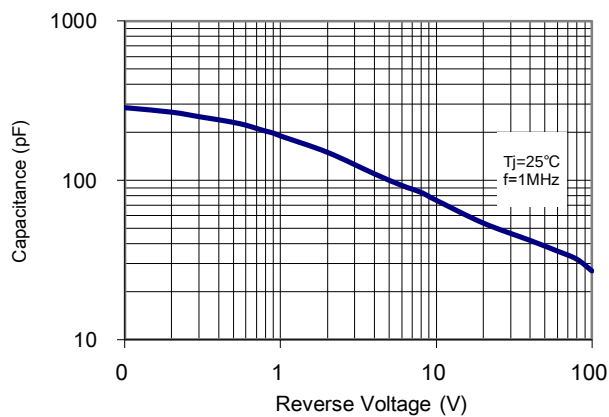
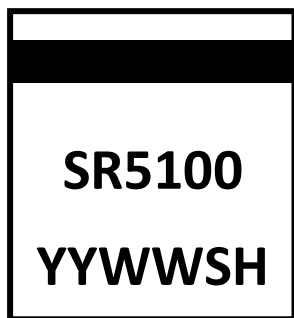


Figure 5: Typical Junction Capacitance



3. Marking information

Top Marking Rule



SR5100 = Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

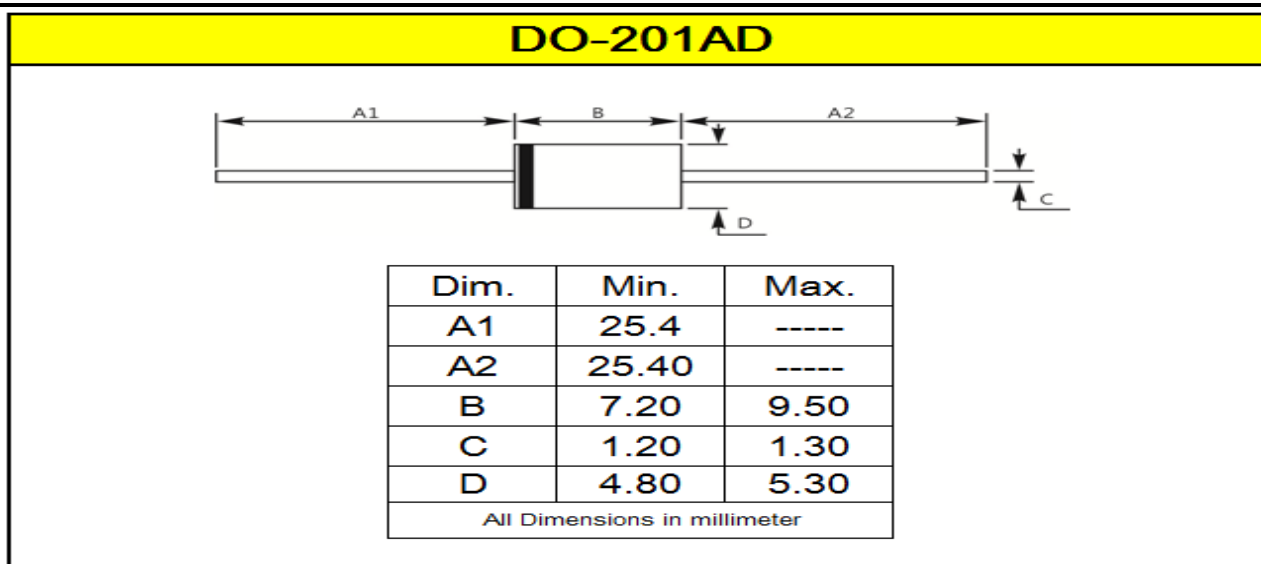
WW = Week code

S = Series Number

H = Halogen Free

4. Package information

Package Outline Dimensions millimeters



5. Ordering information

Part Number	Package	Delivery mode
SR5100H	DO-201AD	800 pieces / ammo-pack

Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.04 ounces (1.1 grams) – DO-201AD

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