



PFC Device Corporation

SR3100H

3A 100V Schottky Rectifier

Major ratings and characteristics

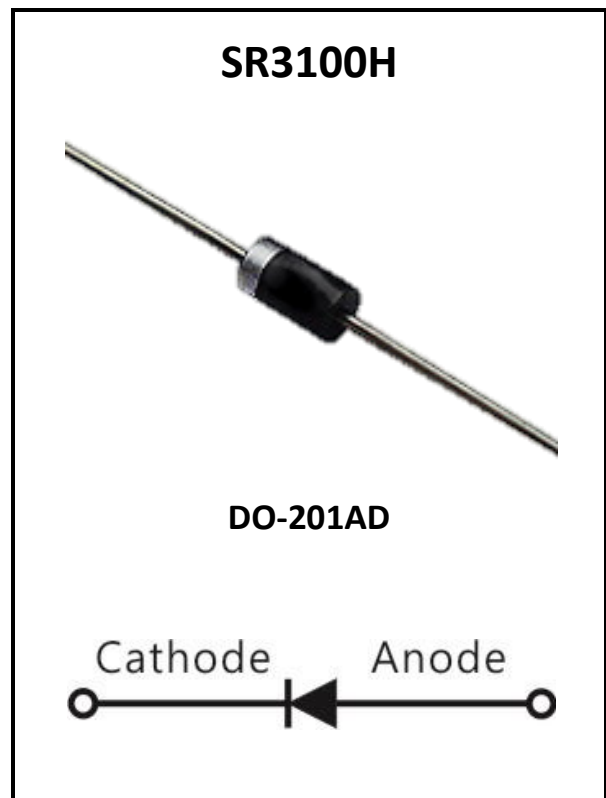
| Characteristics | Values | Units |
|--------------------------------------|-------------|-------|
| $I_{F(AV)}$ Rectangular Waveform | 3 | A |
| V_{RRM} | 100 | V |
| T_J Operating Junction Temperature | -55 to +150 | °C |

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 | SR3100H | 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 | 3.0 | Amp |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 80 | 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 |
| 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)

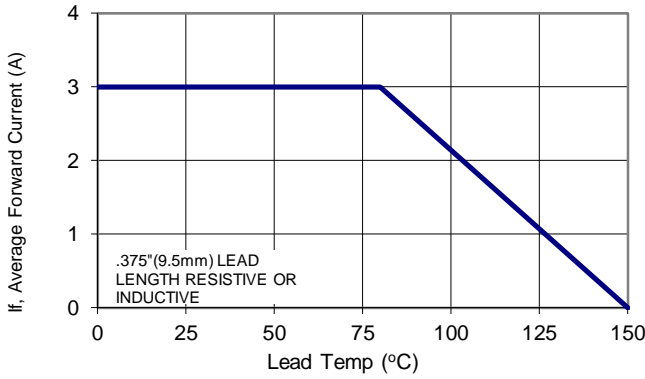


Figure 1: Current Derating, Case

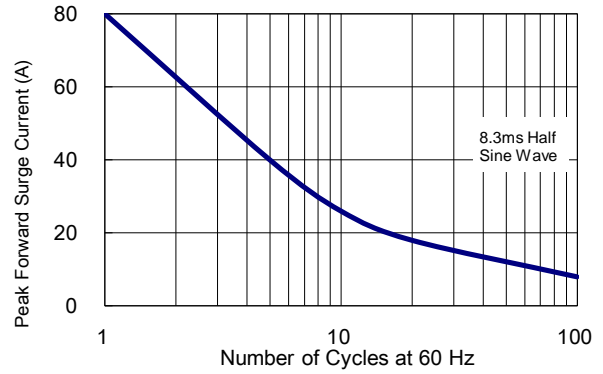


Figure 2: Maximum Repetitive Surge Current

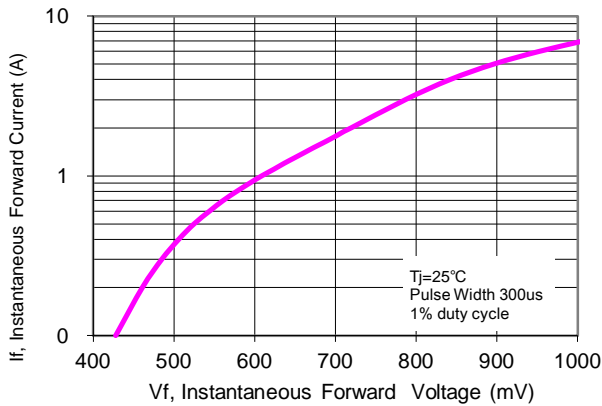


Figure 3: Typical Forward Voltage

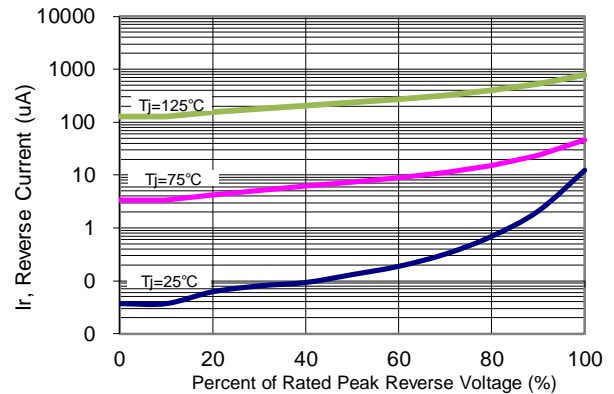


Figure 4: Typical Reverse Current

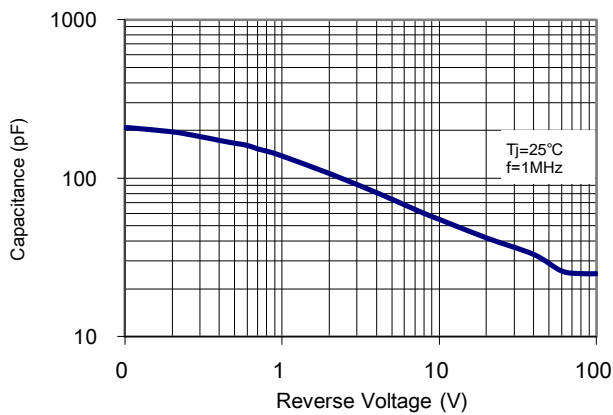
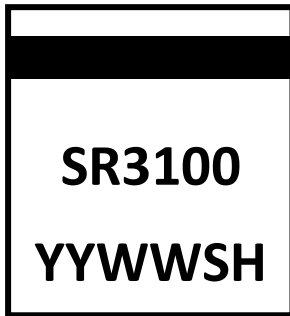


Figure 5: Typical Junction Capacitance



3. Marking information

Top Marking Rule



SR3100 = Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

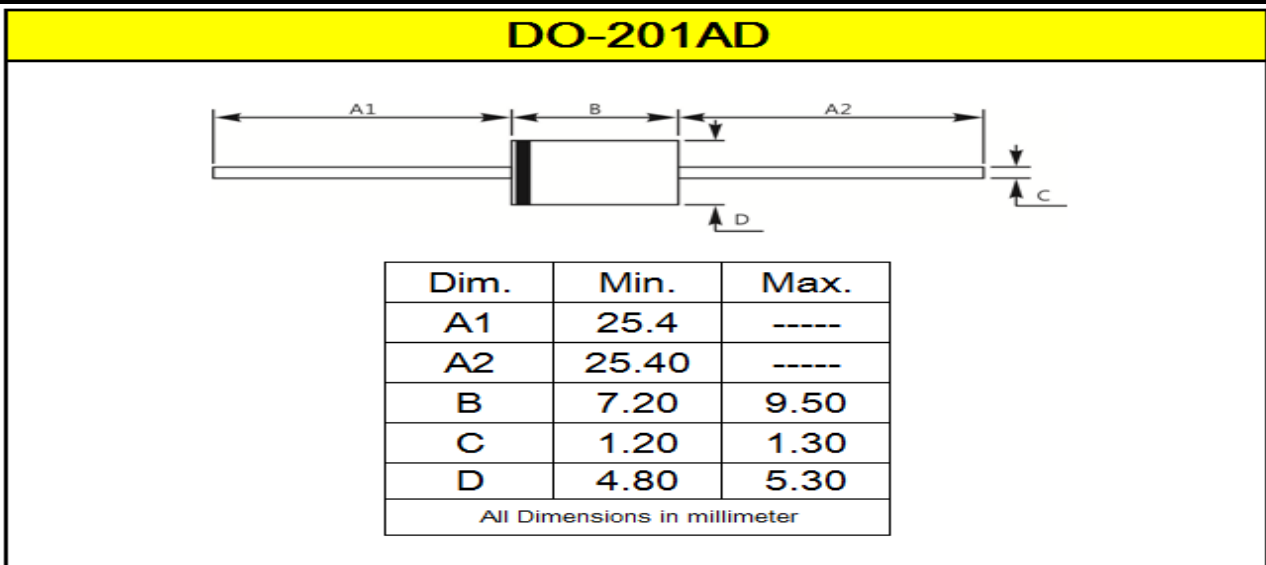
WW = Week code

S = Series Number

H = Halogen Free

4. Package information

Package Outline Dimensions millimeters



5. Ordering information

| Part Number | Package | Delivery mode |
|-------------|----------|------------------------|
| SR3100H | 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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