

SR305 thru SR3010

Features

- Low Switching Noise
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability

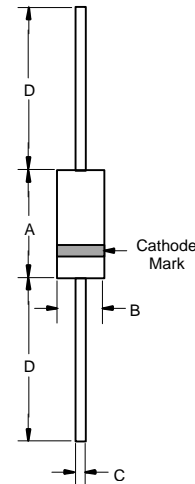
3 Amp Schottky Barrier Rectifier 50 - 100 Volts

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Ambient

| Microsemi Catalog Number | Device Marking | Maximum Reccurent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| SR305 | --- | 50V | 35V | 35V |
| SR306 | --- | 60V | 42V | 42V |
| SR308 | --- | 80V | 56V | 56V |
| SR3010 | --- | 100V | 70V | 70V |

DO-201AD



Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|---------------|---|
| Average Forward Current | $I_{F(AV)}$ | 3.0A | $T_A = 85^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 150A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage SR305-306 SR308-3010 | V_F | .72V .80V | $I_{FM} = 3.0A$; $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 3.0mA 30mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 200pF | Measured at 1.0MHz, $V_R=4.0V$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | --- | .370 | --- | 9.50 | |
| B | --- | .250 | --- | 6.40 | |
| C | .048 | .052 | 1.20 | 1.30 | |
| D | 1.000 | --- | 25.40 | --- | |

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Figure 1
Typical Forward Characteristics

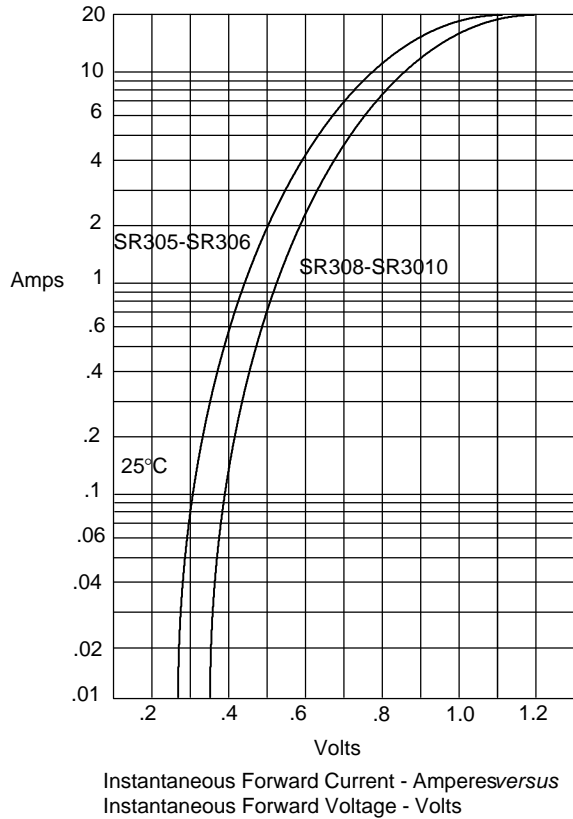
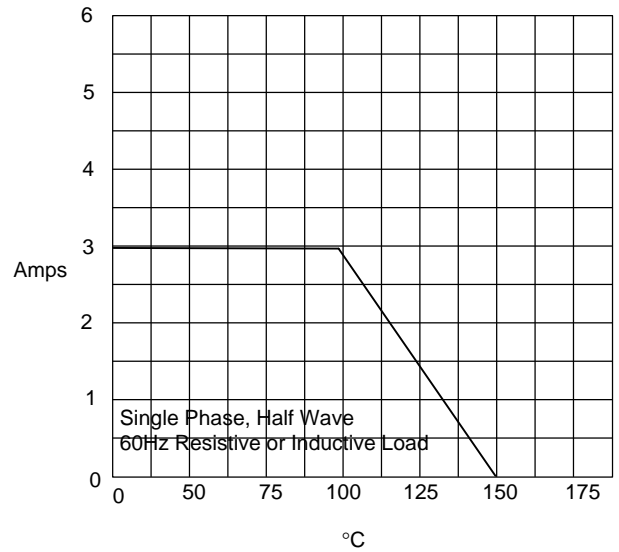
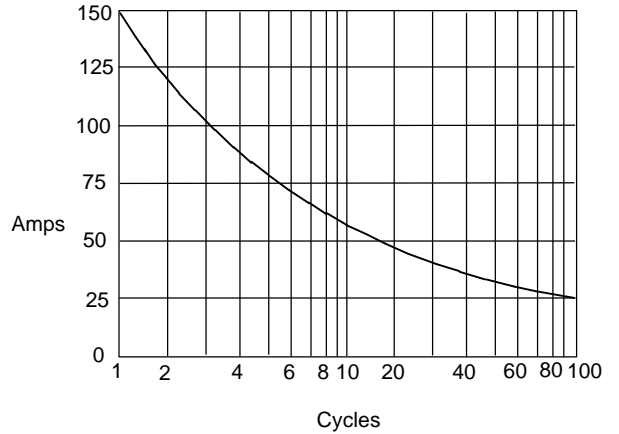


Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 3
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Figure 4
Junction Capacitance

