

**R1200F
THRU
R2000F**

Features

- Low Cost
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Voltage
- Fast Switching For Higher Efficiency

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

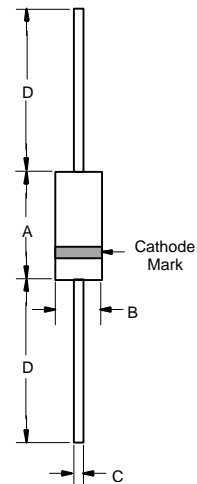
| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| R1200 | --- | 1200V | 840V | 1200V |
| R1500 | --- | 1500V | 1050V | 1500V |
| R1800 | --- | 1800V | 1260V | 1800V |
| R2000 | --- | 2000V | 1400V | 2000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------|---|
| Average Forward Current | $I_{F(AV)}$ | 500mA | $T_A = 50^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage R1200-R1800 R2000 | V_F | 1.6V 2.6V | $I_{FM} = 0.5A;$ $T_A = 50^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0µA 50µA | $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 30pF | Measured at 1.0MHz, $V_R=4.0V$ |
| Maximum Reverse Recovery Time | T_{rr} | 500nS | |

**500 Milliamp High Voltage Fast Recovery Silicon Rectifier
1200 to 2000 Volts**

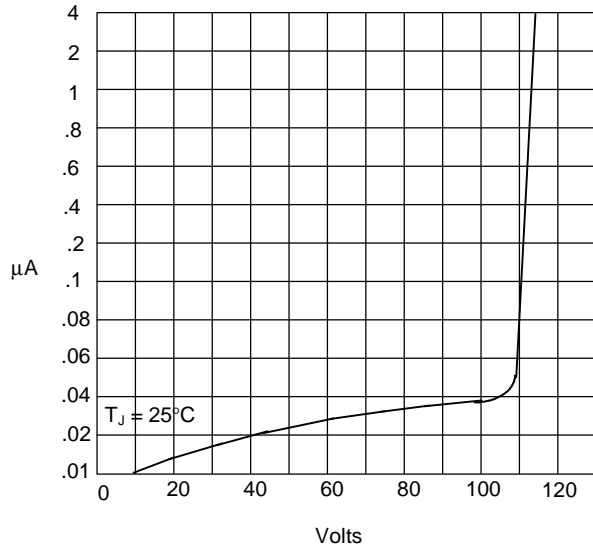
DO-41



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| A | .166 | .205 | 4.10 | 5.20 | |
| B | .080 | .107 | 2.00 | 2.70 | |
| C | .028 | .034 | .70 | .90 | |
| D | 1.000 | --- | 25.40 | --- | |

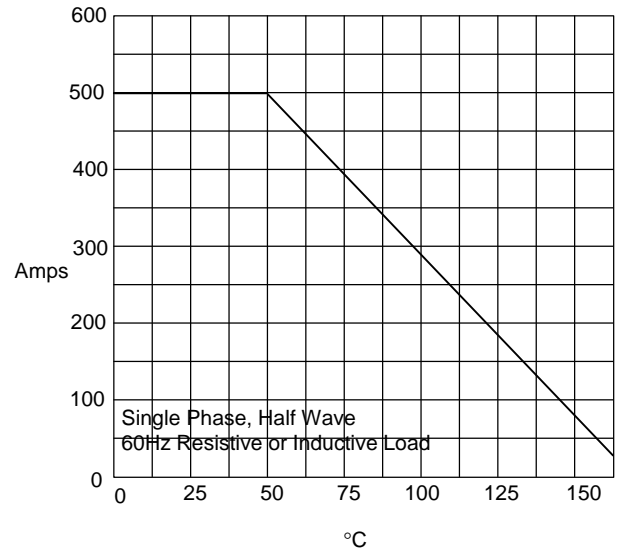
R1200F - R2000F

Figure 1
Typical Reverse Characteristics



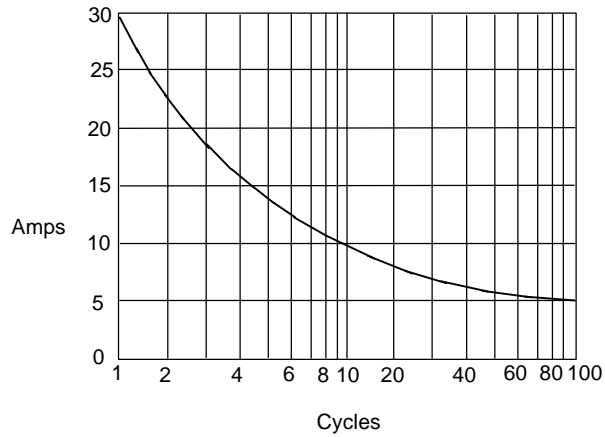
Instantaneous Reverse Current - Micro Amperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - $^\circ C$

Figure 3
Peak Forward Surge Current



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