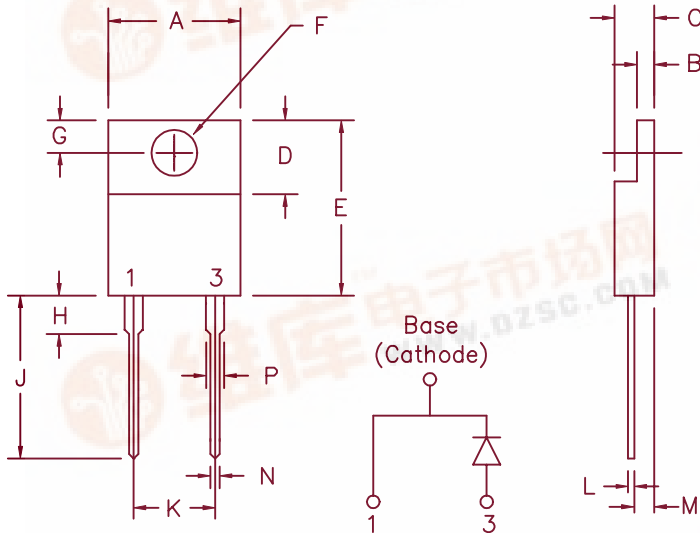


Ultra Fast Recovery Rectifiers

UF1610 — UF1620



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .390 | .415 | 9.91 | 10.54 | |
| B | .045 | .055 | 1.14 | 1.40 | |
| C | .180 | .190 | 4.57 | 4.83 | |
| D | .245 | .260 | 6.22 | 6.60 | |
| E | .550 | .650 | 13.97 | 16.51 | |
| F | .139 | .155 | 3.53 | 3.94 | Dia. |
| G | .100 | .120 | 2.54 | 3.05 | |
| H | --- | .250 | --- | 6.35 | |
| J | .500 | .580 | 12.70 | 14.73 | |
| K | .190 | .210 | 4.83 | 5.33 | |
| L | .014 | .025 | 0.35 | 0.63 | |
| M | .080 | .115 | 2.03 | 2.92 | |
| N | .028 | .038 | 0.71 | 0.96 | |
| P | .045 | .055 | 1.14 | 1.40 | |

Similar to TO-220AC

| Microsemi Catalog Number | Repetitive Peak Reverse Voltage | Transient Peak Reverse Voltage |
|--------------------------|---------------------------------|--------------------------------|
| UF1610 | 100V | 100V |
| UF1615 | 150V | 150V |
| UF1620 | 200V | 200V |

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- V_{RRM} 100 TO 200 Volts
- 16 Amps current rating
- t_{RR} 35 nsec maximum

Electrical Characteristics

| | | |
|------------------------------|---------------------|--|
| Average forward current | $I_F(AV)$ 16 Amps | $T_C = 140^\circ C$, Square wave, $R_{\theta JC} = 2^\circ C/W$ |
| Maximum surge current | I_{FSM} 200 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max peak forward voltage | V_{FM} 1.0 Volts | $I_{FM} = 16A; T_J = 25^\circ C^*$ |
| Max reverse recovery time | t_{RR} 35 ns | 1/2A, 1A, 1/4A, $T_J = 25^\circ C$ |
| Max peak reverse current | I_{RM} 10 μA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 70pF | $V_R = 10V, T_J = 25^\circ C$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|-----------------|---------------------------------|
| Storage temp range | T_{STG} | -55°C to 175°C |
| Operating junction temp range | T_J | -55°C to 175°C |
| Max thermal resistance | $R_{\theta JC}$ | 2.0°C/W Junction to Case |
| Mounting torque | | 10-15 inch pounds |
| Weight | | 0.08 ounces (2.3 grams) typical |



UF1610 — UF1620

Figure 1
Typical Forward Characteristics

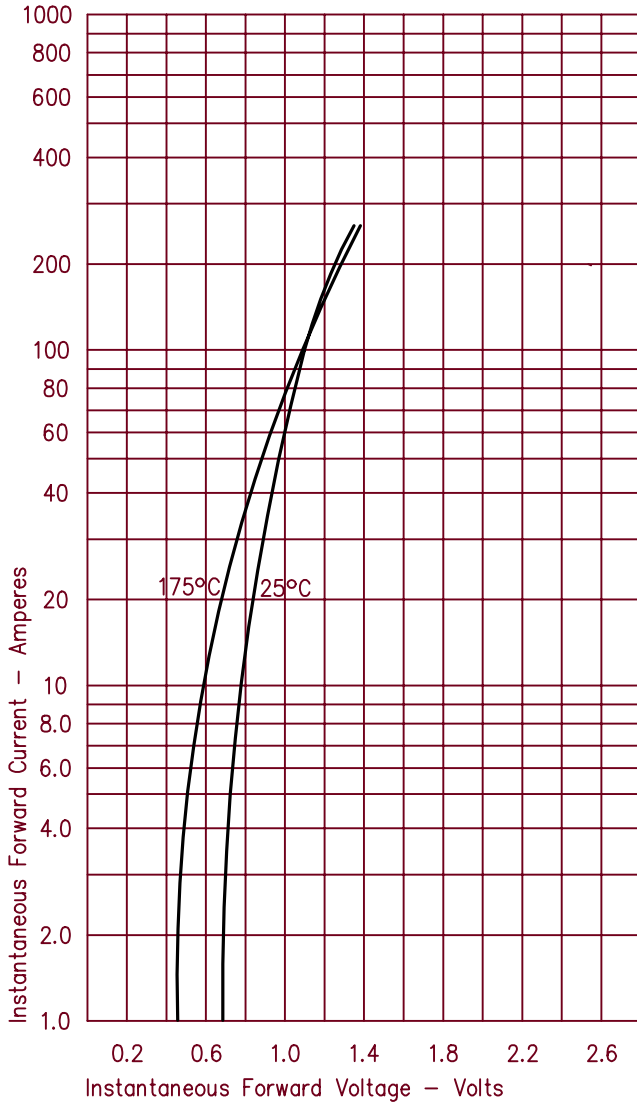


Figure 3
Typical Junction Capacitance

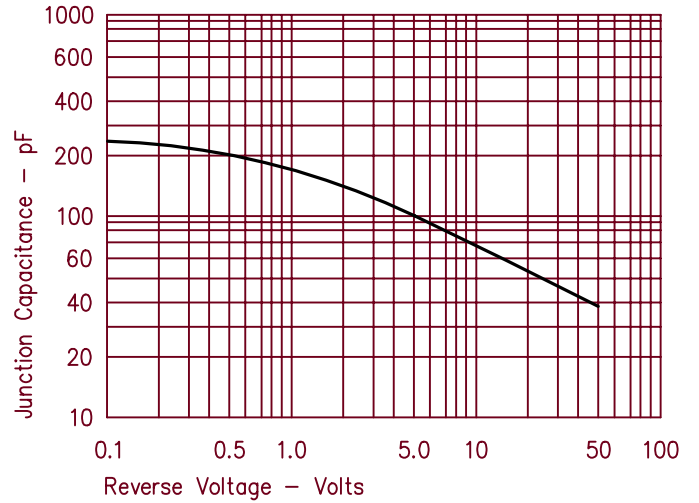


Figure 4
Forward Current Derating

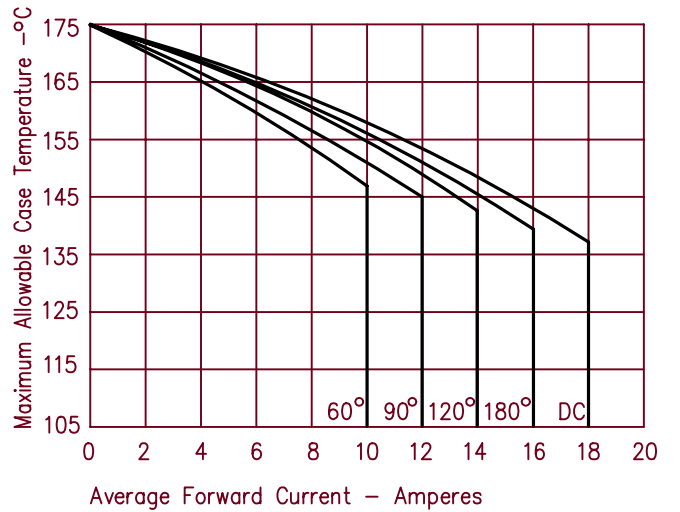


Figure 2
Typical Reverse Characteristics

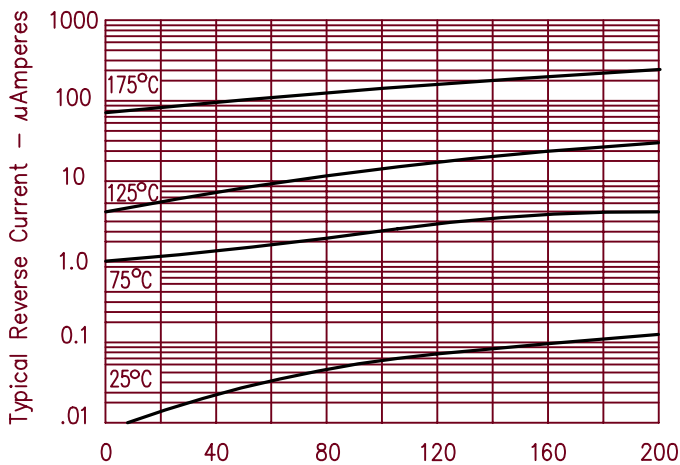


Figure 5
Maximum Forward Power Dissipation

