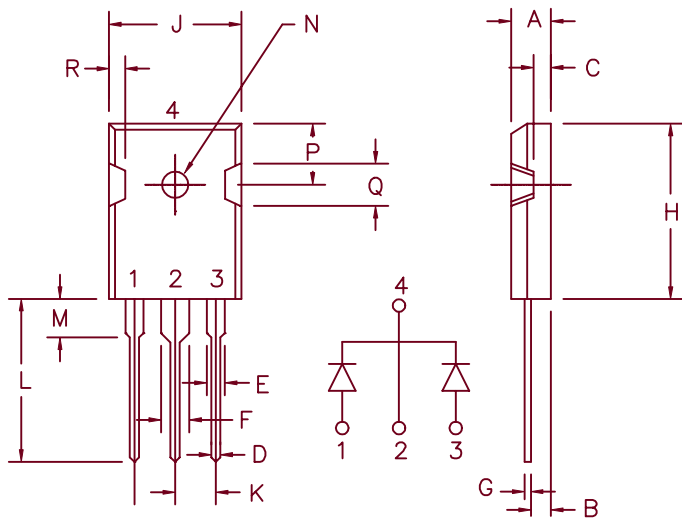


30 Amp Ultra Fast Recovery Rectifier UF3060 — UF3080



Similar to TO-247AD

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .185 | .209 | 4.70 | 5.31 | |
| B | .087 | .102 | 2.21 | 2.59 | |
| C | .059 | .098 | 1.50 | 2.49 | |
| D | .040 | .055 | 1.02 | 1.40 | |
| E | .079 | .094 | 2.01 | 2.39 | |
| F | .118 | .133 | 3.00 | 3.38 | |
| G | .016 | .031 | .410 | 0.78 | |
| H | .819 | .883 | 20.80 | 22.4 | |
| J | .627 | .650 | 15.93 | 16.5 | |
| K | .215 | — | 5.46 | — | Typ. |
| L | .790 | .810 | 20.07 | 20.6 | |
| M | .157 | .180 | 3.99 | 4.57 | |
| N | .139 | .144 | 3.53 | 3.66 | Dia. |
| P | .255 | .300 | 6.48 | 7.62 | |
| Q | .170 | .210 | 4.32 | 5.33 | |
| R | .080 | .110 | 2.03 | 2.79 | |

Microsemi Catalog
Number

UF3060
UF3070
UF3080

Repetitive Peak
Reverse Voltage

600V
700V
800V

Transient Peak
Reverse Voltage

600V
700V
800V

- Ultra Fast Recovery Rectifier
- 2 x 15 Amp current rating
- trr 70nS maximum
- Non isolated base
- 175°C junction temperature
- VRRM 600 to 800 volts

Electrical Characteristics

| | | |
|-----------------------------------|---------------------|--|
| Average forward current per pkg | $I_F(AV)$ 30 Amps | $T_C = 150^\circ C$, square wave, $R_{\theta JC} = .75^\circ C/W$ |
| Average forward current per leg | $I_F(AV)$ 15 Amp | $T_C = 150^\circ C$, square wave, $R_{\theta JC} = 1.5^\circ C/W$ |
| Maximum surge current per leg | I_{FSM} 200 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max. peak forward voltage per leg | V_{FM} 1.2 Volts | $I_{FM} = 15A$, $T_J = 25^\circ C^*$ |
| Max. peak reverse current per leg | I_{RM} 10 μA | V_{RRM} , $T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 64 pF | $VR = 10V$, $T_J = 25^\circ C$ |
| Max. reverse recovery time | trr 70nS | 1/2A, 1A, 1/4A, $T_J = 25^\circ C$ |

*Pulse test: Pulse width 300 μsec . Duty Cycle 2%

Thermal and Mechanical Characteristics

| | | |
|--------------------------------|-----------------|----------------------------------|
| Storage temp range | T_{STG} | $-55^\circ C$ to $+175^\circ C$ |
| Operating junction temp range | T_J | $-55^\circ C$ to $+175^\circ C$ |
| Max thermal resistance per leg | $R_{\theta JC}$ | $1.5^\circ C/W$ Junction to case |
| Max thermal resistance per pkg | $R_{\theta JC}$ | $.75^\circ C/W$ Junction to case |
| Mounting torque | | 8-10 inch pounds (#6 screw) |
| Weight | | .22 ounces (6.36 grams) typical |

7-27-00 Rev. 1

UF3060 — UF3080

Figure 1
Typical Forward Characteristics — Per Leg

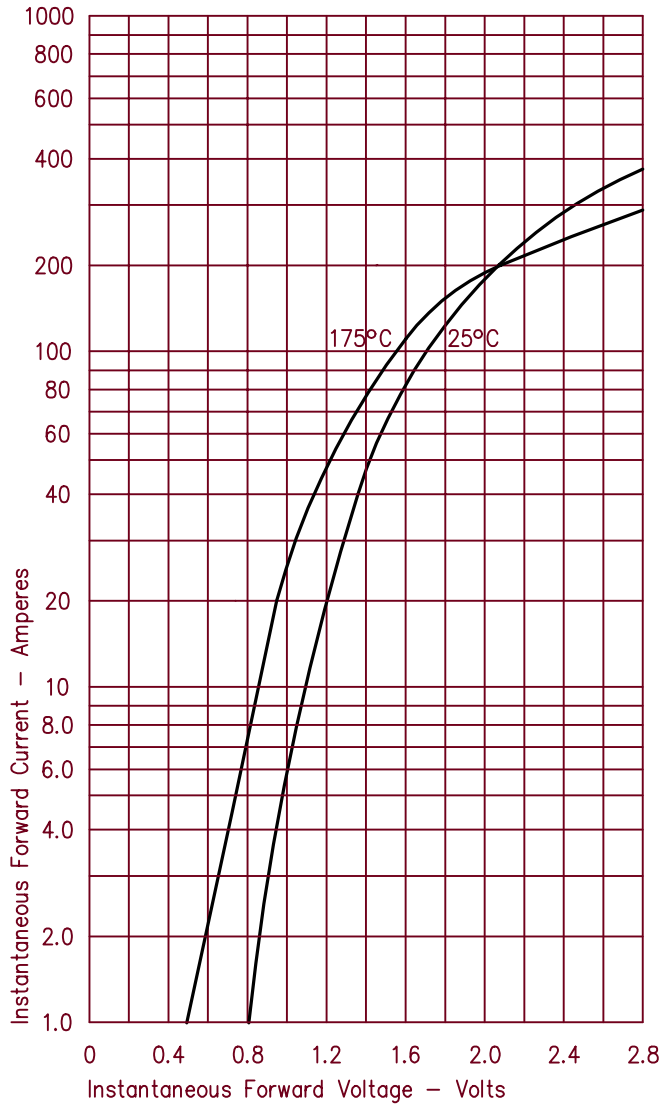


Figure 3
Typical Junction Capacitance — Per Leg

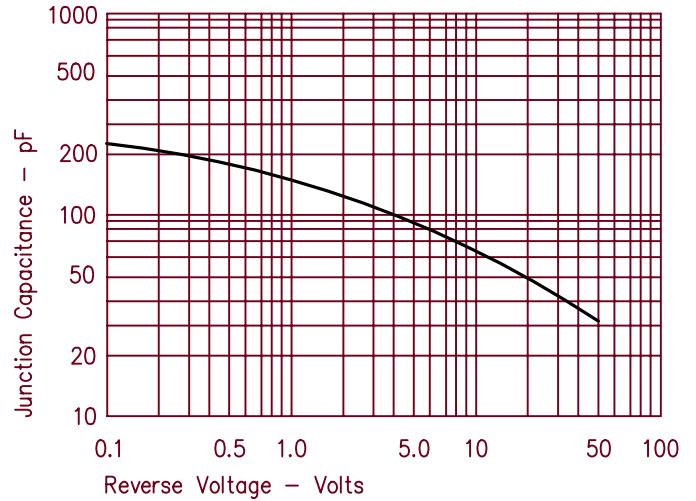


Figure 4
Forward Current Derating — Per Leg

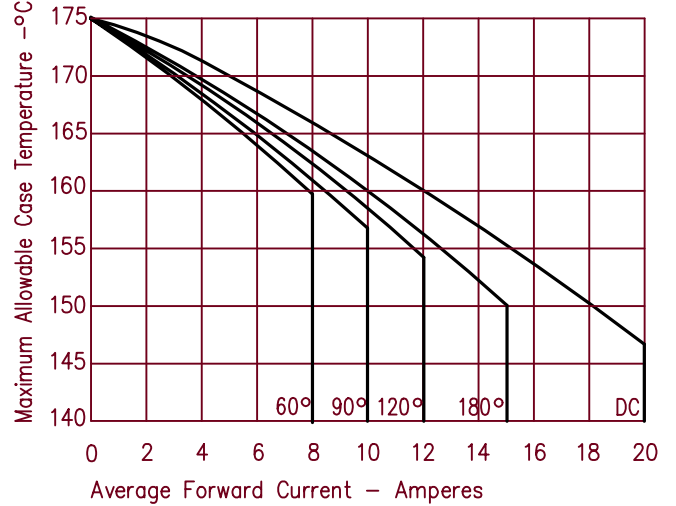


Figure 2
Typical Reverse Characteristics — Per Leg

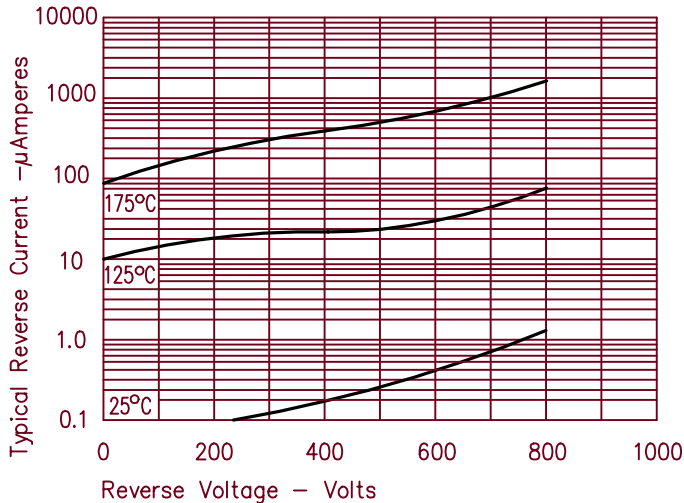


Figure 5
Maximum Forward Power Dissipation — Per Leg

