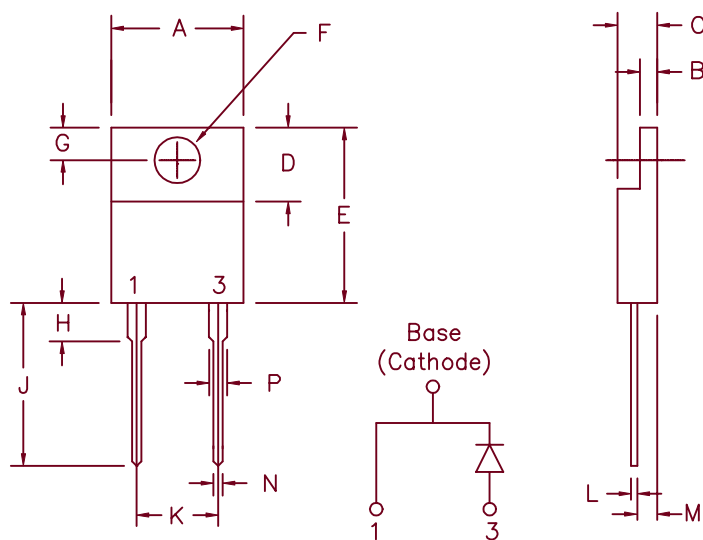


# Ultra Fast Recovery Rectifiers

## UF860 — UF880



| 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 T0-220AC

Microsemi Catalog  
Number

Repetitive Peak  
Reverse Voltage

Transient Peak  
Reverse Voltage

UF860

600V

600V

UF870

700V

700V

UF880

800V

800V

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- 8 Amp current rating
- $V_{RRM}$  600 to 800 Volts
- $t_{rr}$  70ns maximum

### Electrical Characteristics

Average Forward Current  
Maximum Surge Current  
Max. Peak Forward Voltage  
Max. Peak Reverse Current  
Max. Reverse Recovery Time  
Typical Junction Capacitance

$I_F(AV)$  8 Amps  
 $I_{FSM}$  125 Amps  
 $V_{FM}$  1.3 Volts  
 $I_{RM}$  10  $\mu A$   
 $t_{rr}$  70 ns  
 $C_J$  30 pF

$T_C = 157^\circ C$ , Square wave,  $R_{\theta JC} = 2.0^\circ C/W$   
8.3ms, half sine,  $T_J = 175^\circ C$   
 $I_{FM} = 8A$ ,  $T_J = 25^\circ C^*$   
 $V_{RRM}$ ,  $T_J = 25^\circ C$   
1/2A, 1A, 1/4A,  $T_J = 25^\circ C$   
 $V_R = 10V$ ,  $T_J = 25^\circ C$ ,  $f = 1MHz$

\*Pulse test: Pulse width 300  $\mu sec$ . Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range  
Operating junction temp range  
Max thermal resistance  
Mounting torque  
Weight

$T_{STG}$   
 $T_J$   
 $R_{\theta JC}$

$-55^\circ C$  to  $+175^\circ C$   
 $-55^\circ C$  to  $+175^\circ C$   
 $2.0^\circ C/W$  junction to case  
10-15 inch pounds  
0.06 ounces (1.8 grams) typical

# UF860 — UF880

Figure 1  
Typical Forward Characteristics

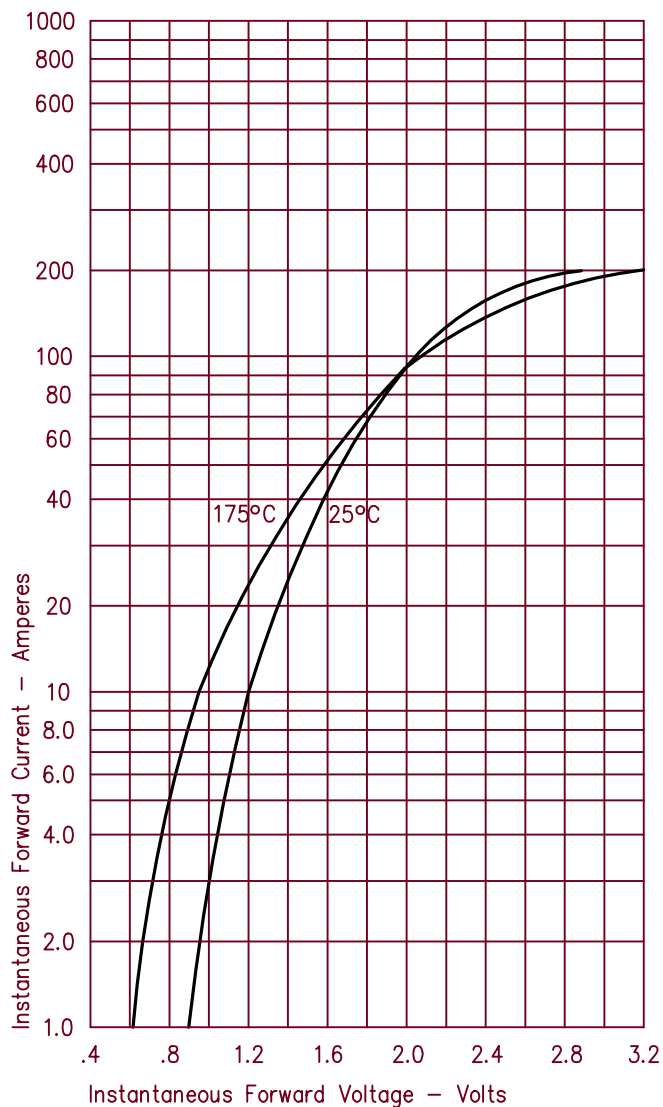


Figure 3  
Typical Junction Capacitance

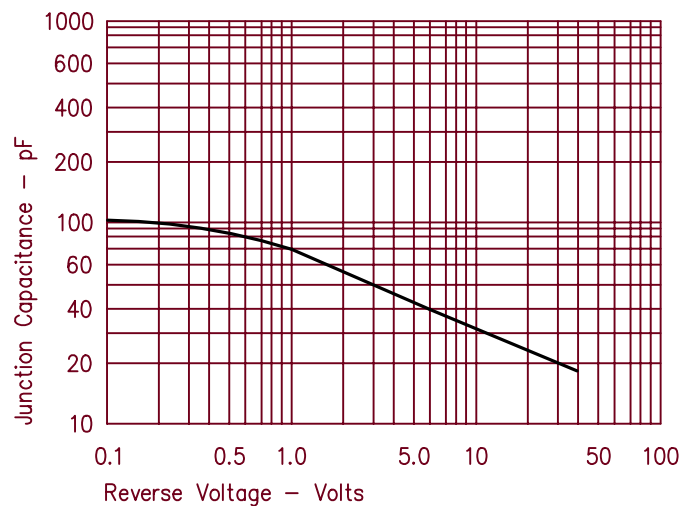


Figure 4  
Forward Current Derating

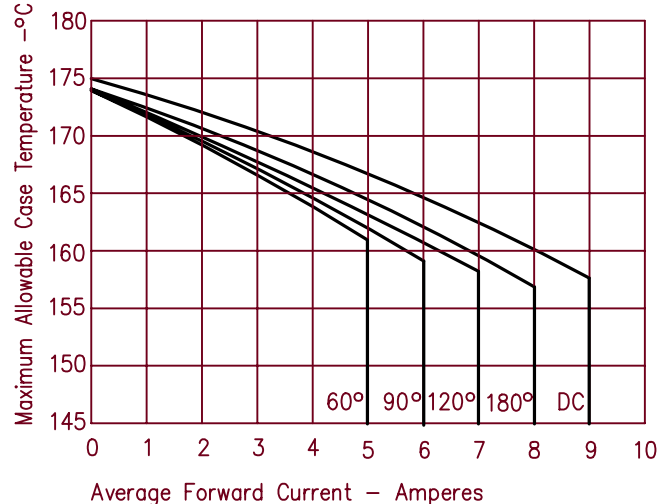


Figure 2  
Typical Reverse Characteristics

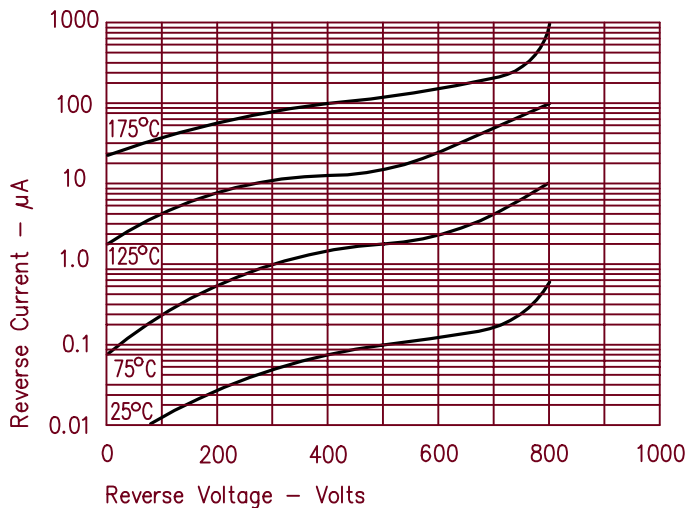


Figure 5  
Maximum Forward Power Dissipation

