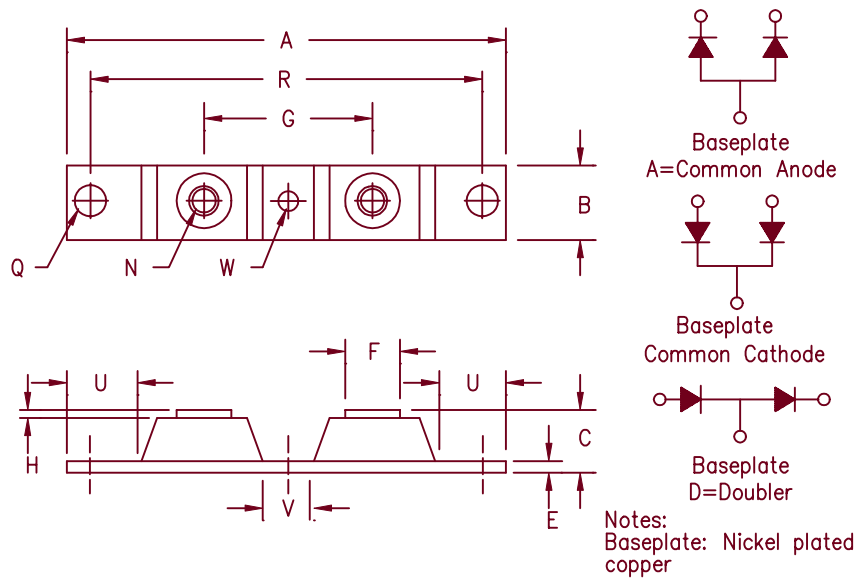


Ultra Fast Recovery Module

UFT40260 — UFT40280



| Dim. | Inches | | Millimeters | | Notes |
|------|--------|-------|-------------|-------|--------|
| | Min. | Max. | Min. | Max. | |
| A | --- | 3.630 | --- | 92.20 | |
| B | 0.700 | 0.800 | 17.78 | 20.32 | |
| C | --- | 0.630 | --- | 16.00 | |
| E | 0.120 | 0.130 | 3.05 | 3.30 | |
| F | 0.490 | 0.510 | 12.45 | 12.95 | |
| G | 1.375 | BSC | 34.92 | BSC | |
| H | 0.010 | --- | 0.25 | --- | |
| N | --- | --- | --- | --- | 1/4-20 |
| Q | 0.275 | 0.290 | 6.99 | 7.37 | Dia. |
| R | 3.150 | BSC | 80.01 | BSC | |
| U | 0.600 | --- | 15.24 | --- | |
| V | 0.312 | 0.340 | 7.92 | 8.64 | |
| W | 0.180 | 0.195 | 4.57 | 4.95 | Dia. |

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|------------------------------|---------------------------------|
| UFT40260* | 600V | 600V |
| UFT40270* | 700V | 700V |
| UFT40280* | 800V | 800V |

*Add Suffix A for Common Anode, D for Doubler

- Ultra Fast Recovery
- 175°C Junction Temperature
- 2 X 200 Amp current rating

Electrical Characteristics

| | | |
|--|----------------------|---|
| Average forward current per pkg | $I_{F(AV)}$ 400 Amps | $T_C = 120^\circ C$, Square wave, $R_{\theta JC} = 0.12^\circ C/W$ |
| Average forward current per leg | $I_{F(AV)}$ 200 Amps | $T_C = 120^\circ C$, Square wave, $R_{\theta JC} = 0.24^\circ C/W$ |
| Maximum surge current per leg | I_{FSM} 2100 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max peak forward voltage per leg | V_{FM} 1.35 Volts | $I_{FM} = 200A; T_J = 25^\circ C^*$ |
| Max peak reverse recovery time per leg | t_{rr} 130 nS | $I_F = 1A, V_R = 30V$ di/dt = 25A/uS |
| Max peak reverse current per leg | I_{RM} 8 mA | $V_{RRM}, T_J = 125^\circ C^*$ |
| Max peak reverse current per leg | I_{RM} 50 uA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance per leg | C_J 400 pF | $V_R = 10V, T_J = 25^\circ C$ |

*Pulse test: Pulse width 300 usec, 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 per leg | $R_{\theta JC}$ | 0.24°C/W Junction to case |
| Max thermal resistance per pkg | $R_{\theta JC}$ | 0.12°C/W Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | 0.08°C/W Case to sink |
| Terminal Torque | | 35-50 inch pounds |
| Mounting Base Torque (outside holes) | | 30-40 inch pounds |
| Mounting Base Torque (center hole) | | 8-10 inch pounds |
| center hole must be torqued first | | |
| Weight | | 2.8 ounces (75 grams) typical |

UFT40260 – UFT40280

Figure 1
Typical Forward Characteristics – Per Leg

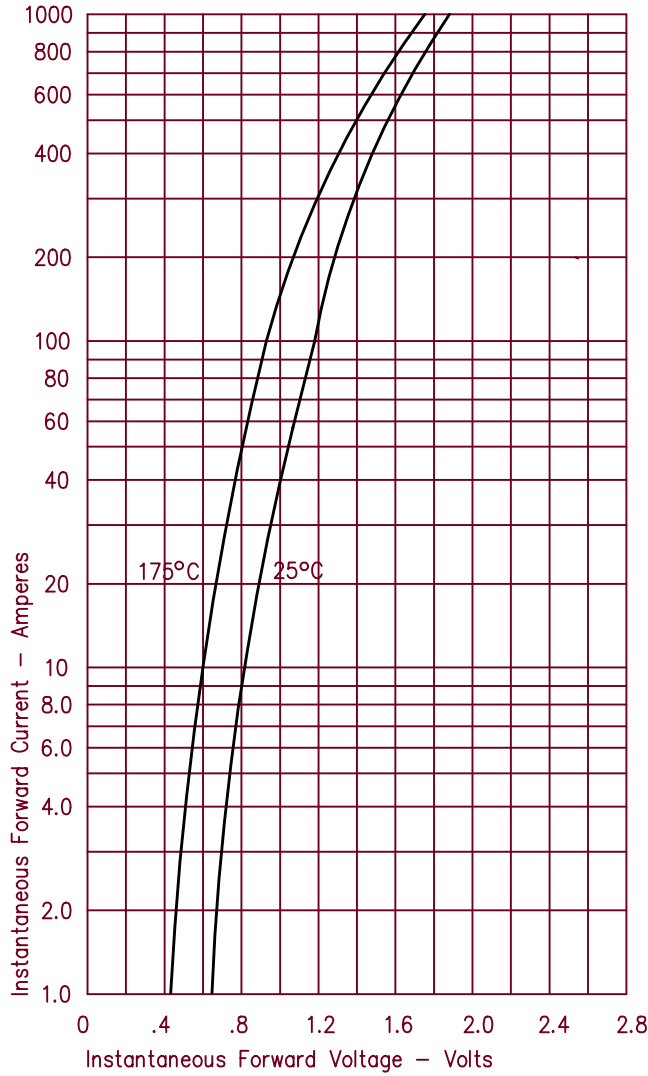


Figure 3
Typical Junction Capacitance – Per Leg

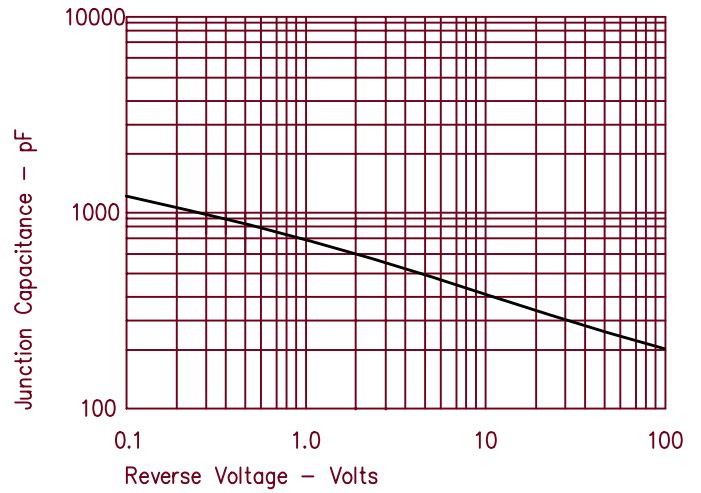


Figure 4
Forward Current Derating – Per Leg

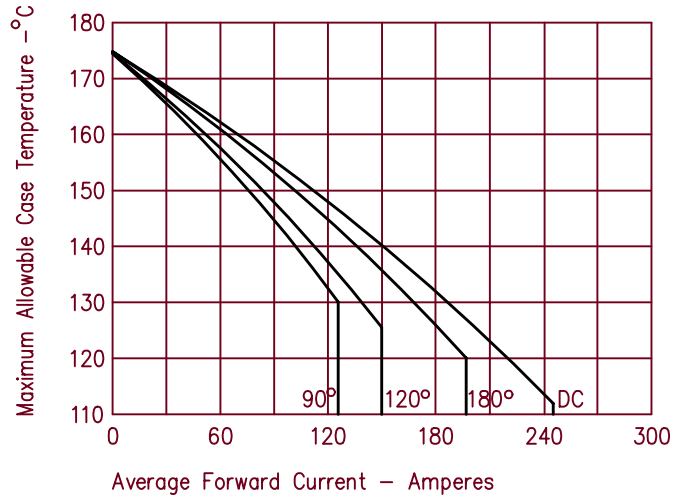


Figure 2
Typical Reverse Characteristics – Per Leg

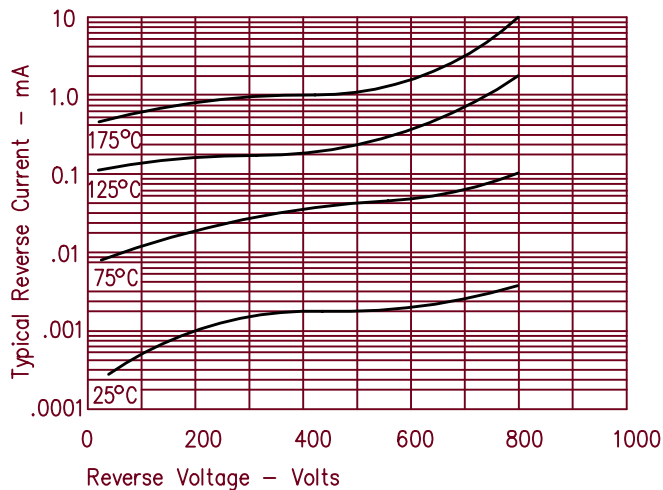


Figure 5
Maximum Forward Power Dissipation – Per Leg

