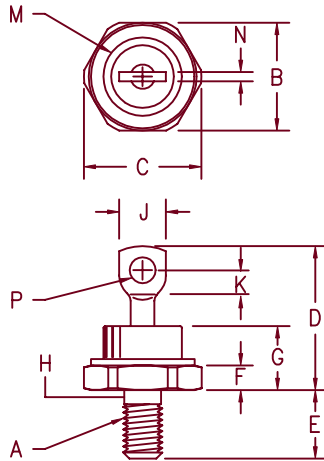


# Ultra Fast Recovery Rectifiers

## UFR10260 — UFR10280



## Notes:

1. Full threads within 2 1/2 threads
2. Standard Polarity: Stud is Cathode  
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A		1/4-28 UNF 3A			1
B	.667	.687	16.94	17.45	
C	---	.793	---	20.14	
D	---	1.00	---	25.40	
E	.422	.453	10.72	11.51	
F	.115	.200	2.92	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	2
J	.250	.375	6.35	9.52	
K	.140	---	3.56	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

### D0203AB (D05)

Microsemi Catalog Number	Working Peak Reverse Voltage	Peak Reverse Voltage
UFR10260*	600V	600V
UFR10270*	700V	700V
UFR10280*	800V	800V

\*Add Suffix R For Reverse Polarity

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- 100 Amps current rating
- $V_{RRM}$  600 to 800 Volts
- $t_{RR}$  120 nsec maximum

### Electrical Characteristics

Average forward current	$I_{F(AV)}$ 100 Amps	$T_C = 134^\circ\text{C}$ , Square wave, $R_{\theta JC} = 0.45^\circ\text{C/W}$ 8.3 ms, half sine, $T_J = 175^\circ\text{C}$
Maximum surge current	$I_{FSM}$ 1300 Amps	
Max peak forward voltage	$V_{FM}$ 1.35 Volts	$I_{FM} = 100\text{A}$ : $T_J = 25^\circ\text{C}^*$ $I_F = 1\text{A}$ , $V_R = 30\text{V}$ , $di/dt = -50\text{A}/\mu\text{s}$
Max reverse recovery time	$t_{RR}$ 120 nS	
Max peak reverse current	$I_{RM}$ 5 mA	$V_{RRM}$ , $T_J = 125^\circ\text{C}$
Max peak reverse current	$I_{RM}$ 25 $\mu\text{A}$	$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$ 210 pF	$V_R = 10\text{V}$ , $f = 1\text{Mhz}$ , $T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	-65°C to 175°C
Operating junction temp range	$T_J$	-65°C to 175°C
Max thermal resistance	$R_{\theta JC}$	0.45°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.5°C/W Case to sink
Mounting torque		25-30 inch pounds
Weight		.52 ounces (14.7 grams) typical

# UFR10260 — UFR10280

Figure 1  
Typical Forward Characteristics

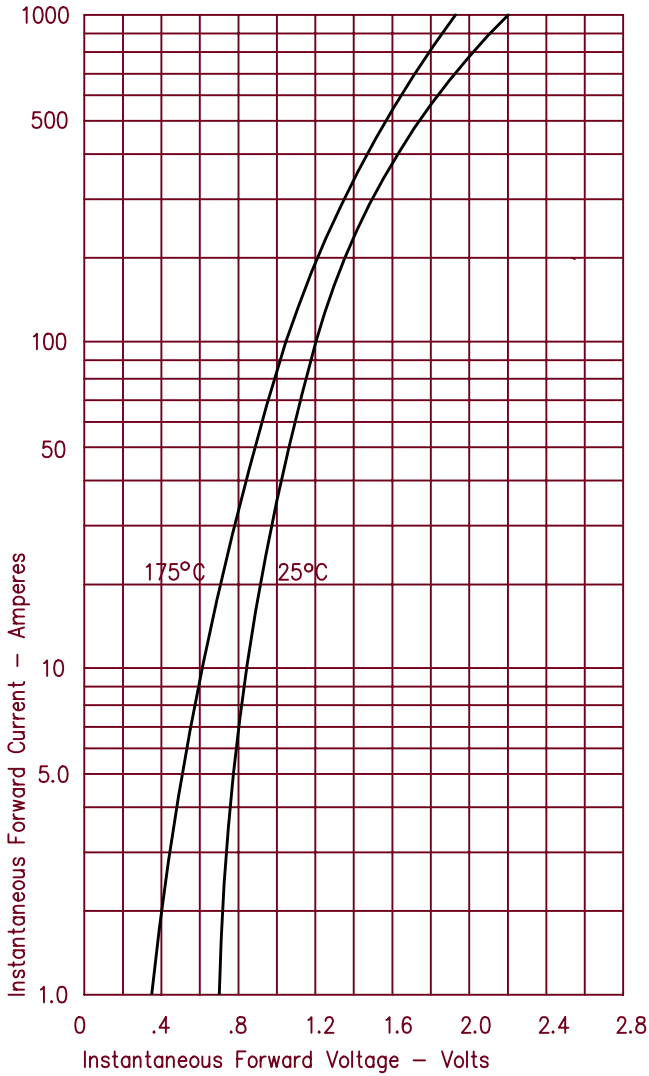


Figure 3  
Typical Junction Capacitance

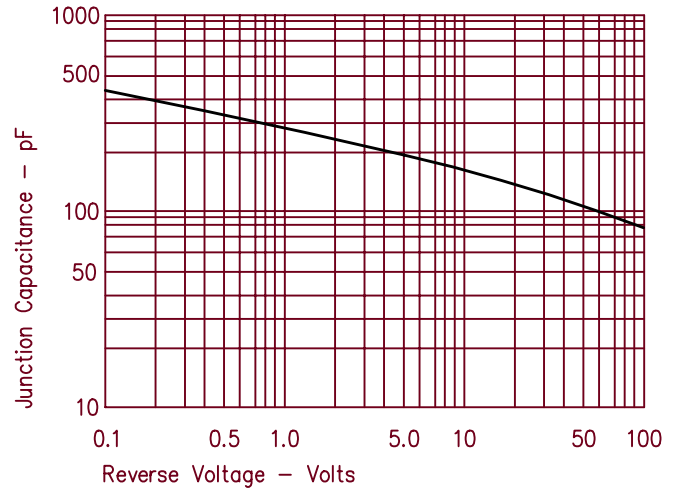


Figure 4  
Forward Current Derating

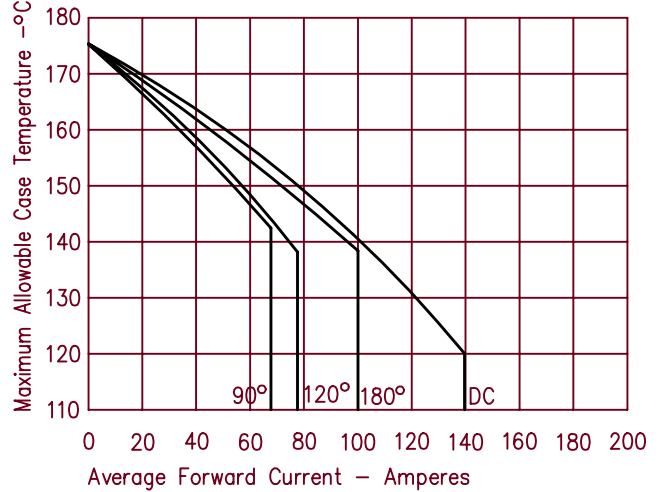


Figure 2  
Typical Reverse Characteristics

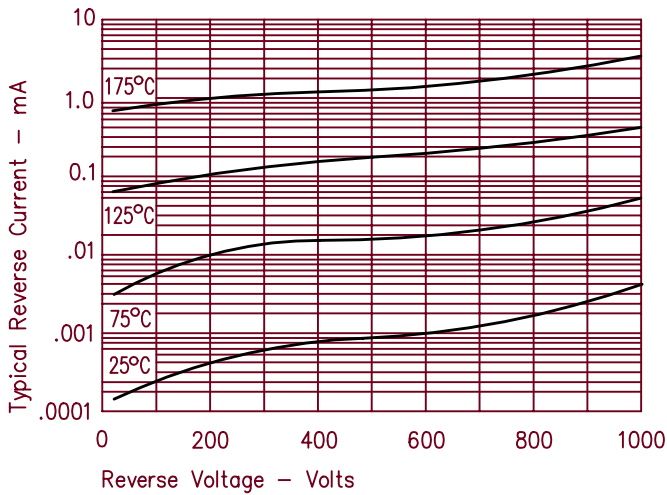


Figure 5  
Maximum Forward Power Dissipation

