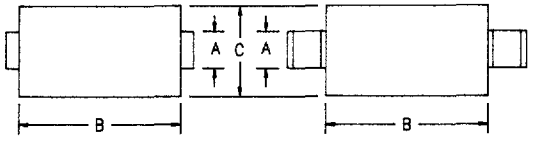
Ultra Fast Recovery Rectifiers
UFS160, UFS170, UFS180



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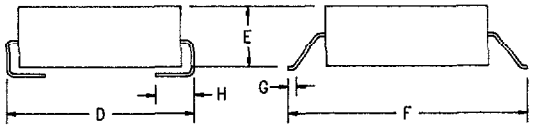

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.081	.087	2.06	2.21	
B	.160	.180	4.06	4.57	
C	.130	.155	3.30	3.94	
D	.205	.220	5.21	5.59	
E	.075	.095	1.90	2.41	
F	.270	.290	6.86	7.37	
G	.015	.030	.381	.762	
H	.030	.060	.760	1.52	

D

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
*UFS160	600V	600V
*UFS170	700V	700V
*UFS180	800V	800V

* Add Suffix J for J Lead or G for Gull Wing Lead Configuration

- Ultra Fast Recovery
- 175°C Junction Temperature
- V_{RRM} 600 to 800 Volts
- 1 Amp Current Rating
- t_{RR} 60nS Max.

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 1.0 Amps	T_A = 135°C. Square wave, $R_{\theta JC}$ = 30°C/W
Maximum surge current	I_{FSM} 25 Amps	8.3ms, half sine, T_J = 175°C
Max peak forward voltage	V_{FM} .89 Volts	I_{FM} = 0.1A; T_J = 25°C*
Max peak forward voltage	V_{FM} 1.2 Volts	I_{FM} = 1.0A; T_J = 25°C*
Max reverse recovery time	t_{RR} 60 nS	1/2A, 1A, 1/4A, T_J = 25°C
Typical reverse recovery time	t_{RR} 45 nS	1/2A, 1A, 1/4A, T_J = 25°C
Max peak reverse current	I_{RM} 20 μA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 5.5 pF	V_R = 10V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	−40°C to 175°C	
Operating junction temp range	T_J	−40°C to 175°C	
Maximum thermal resistance	$R_{\theta JC}$	30°C/W	Junction to Case
Weight		.0047 ounces (.013 grams) typical	

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Microsemi Corp.
Colorado

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Figure 1
Typical Forward Characteristics

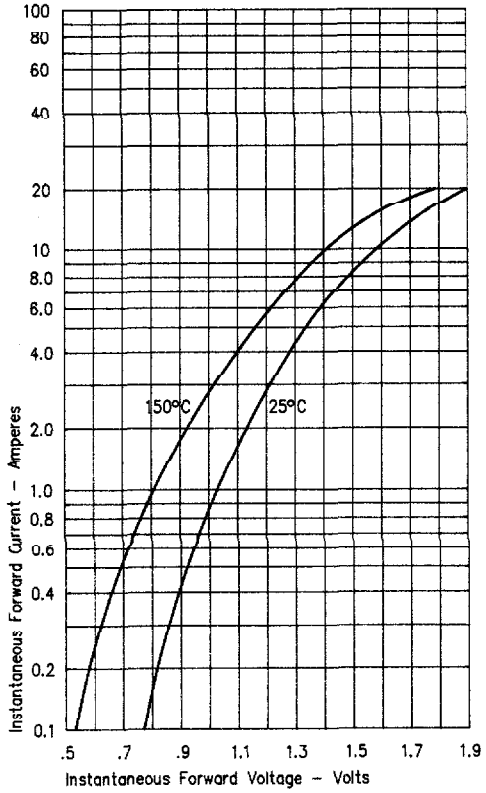

Figure 2
Typical Reverse Characteristics

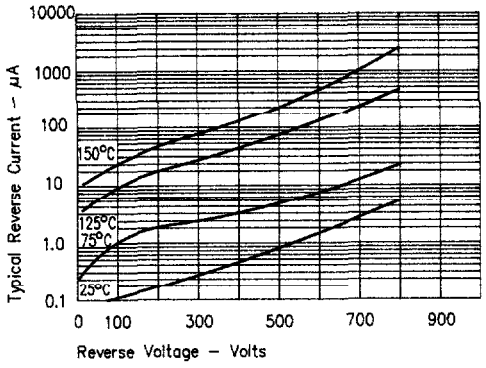

Figure 3
Typical Junction Capacitance