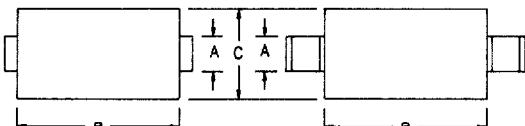


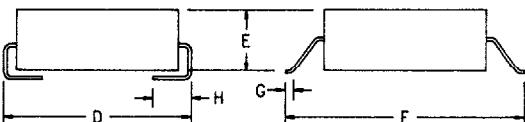
# Ultra Fast Recovery Rectifiers

## UFS505, 510, 515, 520



D0215AB

Dim.	Millimeter					
	Inches	Minimum	Maximum	Minimum	Maximum	Notes
A	.117	.123	2.21	2.97		
B	.260	.280	4.57	6.60		
C	.220	.245	3.94	5.58		
D	.307	.322	5.59	7.80		
E	.075	.095	1.90	2.41		
F	.380	.400	6.86	7.37		
G	.025	.040	.381	.762		
H	.030	.060	.760	1.52		



D

Microsemi  
Catalog Number

Peak Reverse  
Voltage

Peak Reverse  
Voltage

- \*UFS505
- 50V
- \*UFS510
- 100V
- \*UFS515
- 150V
- \*UFS520
- 200V

\*Add Suffix J For J Lead or G For Gull Wing Lead Configuration

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 50 to 200 Volts
- 5 Amp current rating
- t<sub>RR</sub> 30ns Max.

### Electrical Characteristics

Average forward current

I<sub>F(AV)</sub> 5.0 Amps

Square wave

Maximum surge current

I<sub>FSM</sub> 175 Amps

8.3ms, half sine, T<sub>J</sub> = 175°C

Max peak forward voltage

V<sub>FM</sub> .95 Volts

I<sub>FM</sub> = 5.0A; T<sub>J</sub> = 25°C\*

Max reverse recovery time

t<sub>RR</sub> 30 ns

1/2A, 1A, 1/4A, T<sub>J</sub> = 25°C

Typical reverse recovery time

t<sub>RR</sub> 20 ns

1/2A, 1A, 1/4A, T<sub>J</sub> = 25°C

Max peak reverse current

I<sub>RM</sub> 2 mA

V<sub>RRM</sub>, T<sub>J</sub> = 150°C

Max peak reverse current

I<sub>RM</sub> 10 μA

V<sub>RRM</sub>, T<sub>J</sub> = 25°C

Typical junction capacitance

C<sub>J</sub> 58 pF

V<sub>R</sub> = 10V, T<sub>J</sub> = 25°C

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

### Thermal and Mechanical Characteristics

Storage temperature range  
Operating junction temp range

T<sub>STG</sub>  
T<sub>J</sub>

-40°C to 175°C  
-40°C to 175°C

Weight

.008 ounces (.22 grams) typical

PH: 303-469-2161  
FAX: 303-466-3775

**Microsemi Corp.  
Colorado**

D-13

# UFS505, 510, 515, 520

Figure 1  
Typical Forward Characteristics

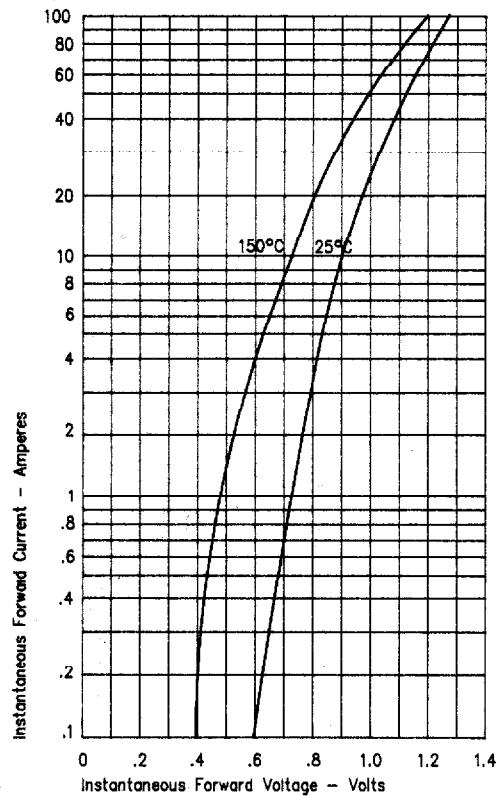


Figure 3  
Typical Junction Capacitance

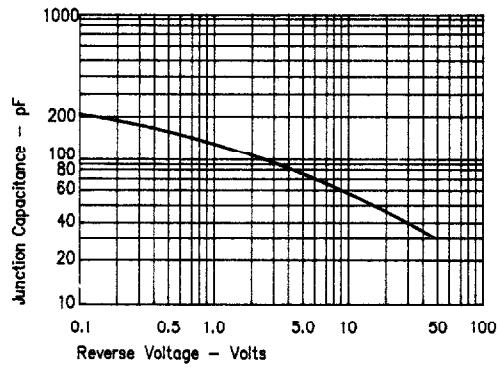


Figure 2  
Typical Reverse Characteristics

