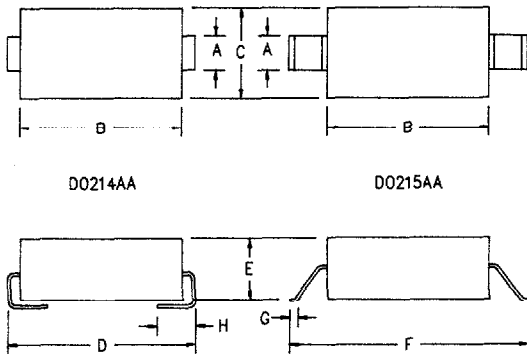


# Ultra Fast Recovery Rectifiers

## UFS130, UFS140, UFS150



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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	



Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
*UFS130	300V	300V
*UFS140	400V	400V
*UFS150	500V	500V

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

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 300 to 500 Volts
- 1 Amp Current Rating
- $t_{RR}$  50nS Max.

Electrical Characteristics		
Average forward current	I <sub>F(AV)</sub> 1.0 Amps	T <sub>A</sub> = 158°C, Square wave R <sub>θJL</sub> = 30°C/W
Maximum surge current	I <sub>FSM</sub> 30 Amps	8.3ms, half sine, T <sub>J</sub> = 175°C
Max peak forward voltage	V <sub>FM</sub> .80 Volts	I <sub>FM</sub> = 0.1A; T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub> 1.1 Volts	I <sub>FM</sub> = 1.0A; T <sub>J</sub> = 25°C*
Max reverse recovery time	t <sub>RR</sub> 50 nS	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Typical reverse recovery time	t <sub>RR</sub> 24 nS	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Max peak reverse current	I <sub>RM</sub> 10 μA	V <sub>R</sub> = 10V, T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 2.5 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	T <sub>STG</sub>	-40°C to 175°C
Operating junction temp range	T <sub>J</sub>	-40°C to 175°C
Maximum thermal resistance	R <sub>θJC</sub>	30°C/W Junction to Case
Weight		.0047 ounces (.013 grams) typical

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

**Microsemi Corp.**  
**Colorado**

# UFS130, UFS140, UFS150

Figure 1  
Typical Forward Characteristics

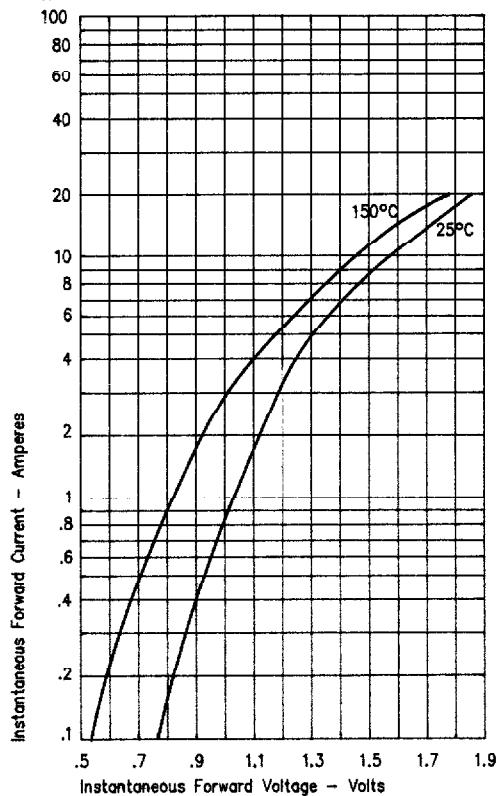


Figure 3  
Typical Junction Capacitance

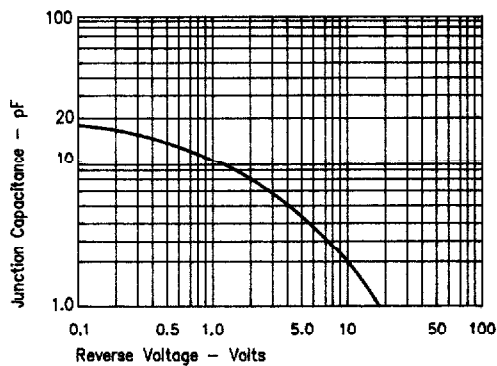


Figure 2  
Typical Reverse Characteristics

