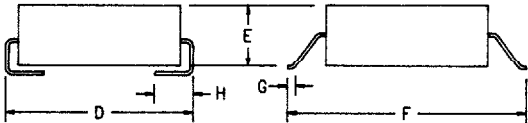
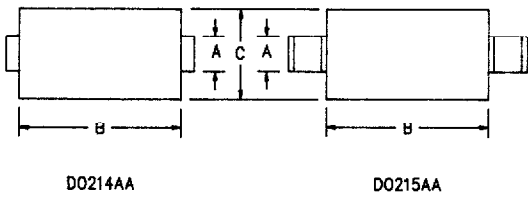


# Ultra Fast Recovery Rectifiers

## UFS105, 110, 115, 120



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
*UFS105	50V	50V
*UFS110	100V	100V
*UFS115	150V	150V
*UFS120	200V	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
- 1 Amp Current Rating
- $t_{RR}$  30ns Max.

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 140^\circ C$ , Square wave, $R_{\theta J L} = 30^\circ C/W$
Maximum surge current	$I_{FSM}$ 35 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max peak forward voltage	$V_{FM}$ .75 Volts	$I_{FM} = 0.1A; T_J = 25^\circ C^*$
Max peak forward voltage	$V_{FM}$ .95 Volts	$I_{FM} = 1.0A; T_J = 25^\circ C^*$
Max reverse recovery time	$t_{RR}$ 30 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Typical reverse recovery time	$t_{RR}$ 12 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Max peak reverse current	$I_{RM}$ 5 $\mu A$	$V_{RRM}, T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 10 pF	$V_R = 10V, T_J = 25^\circ C$

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

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

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

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# UFS105, 110, 115, 120

Figure 1  
Typical Forward Characteristics

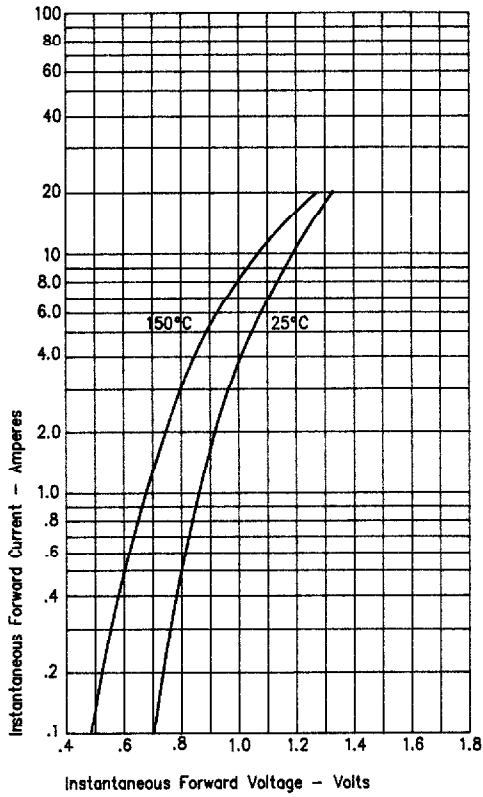


Figure 3  
Typical Junction Capacitance

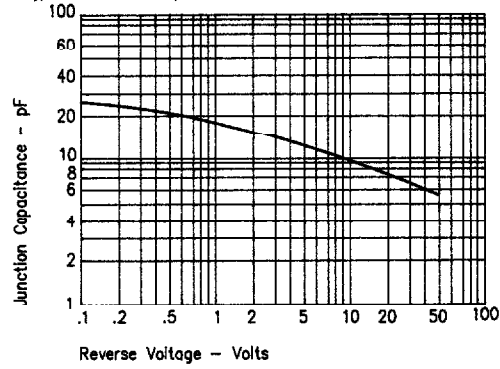


Figure 2  
Typical Reverse Characteristics

