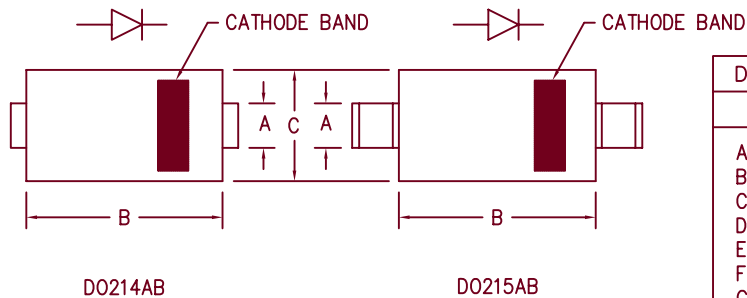
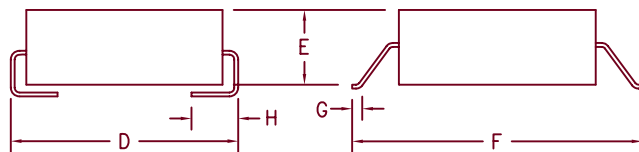


# Ultra Fast Recovery Rectifiers

## UFS530 — UFS550



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .117    | .123    | 2.97       | 3.12    |       |
| B    | .260    | .280    | 6.60       | 7.11    |       |
| C    | .220    | .245    | 5.59       | 6.22    |       |
| D    | .307    | .322    | 7.80       | 8.18    |       |
| E    | .075    | .095    | 1.91       | 2.41    |       |
| F    | .380    | .400    | 9.65       | 10.16   |       |
| G    | .025    | .040    | .640       | 1.02    |       |
| H    | .030    | .060    | .760       | 1.52    |       |



Microsemi  
Catalog Number

\*UFS530  
\*UFS540  
\*UFS550

Working  
Peak Reverse  
Voltage

300V  
400V  
500V

Repetitive  
Peak Reverse  
Voltage

300V  
400V  
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
- 5 Amp current rating
- $t_{RR}$  50nS Max.

### Electrical Characteristics

Average forward current  
Maximum surge current  
Max peak forward voltage  
Max reverse recovery time  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  5.0 Amps  
 $I_{FSM}$  175 Amps  
 $V_{FM}$  1.2 Volts  
 $t_{RR}$  50 nS  
 $I_{RM}$  10  $\mu$ A  
 $C_J$  28 pF

Square wave  
8.3ms, half sine,  $T_J = 175^\circ\text{C}$   
 $I_{FM} = 5.0A$ ;  $T_J = 25^\circ\text{C}^*$   
1/2A, 1A, 1/4A,  $T_J = 25^\circ\text{C}$   
 $V_{RRM}$ ,  $T_J = 25^\circ\text{C}$   
 $V_R = 10V$ ,  $T_J = 25^\circ\text{C}$

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

### Thermal and Mechanical Characteristics

Storage temperature range  
Operating junction temp range  
Maximum thermal resistance  
Weight

$T_{STG}$   
 $T_J$   
 $R_{\theta JL}$

$-55^\circ\text{C}$  to  $175^\circ\text{C}$   
 $-55^\circ\text{C}$  to  $175^\circ\text{C}$   
22°C/W Junction to lead  
.008 ounces (.22 grams) typical



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05-08-07 Rev. 2

# UFS530 — UFS550

Figure 1  
Typical Forward Characteristics

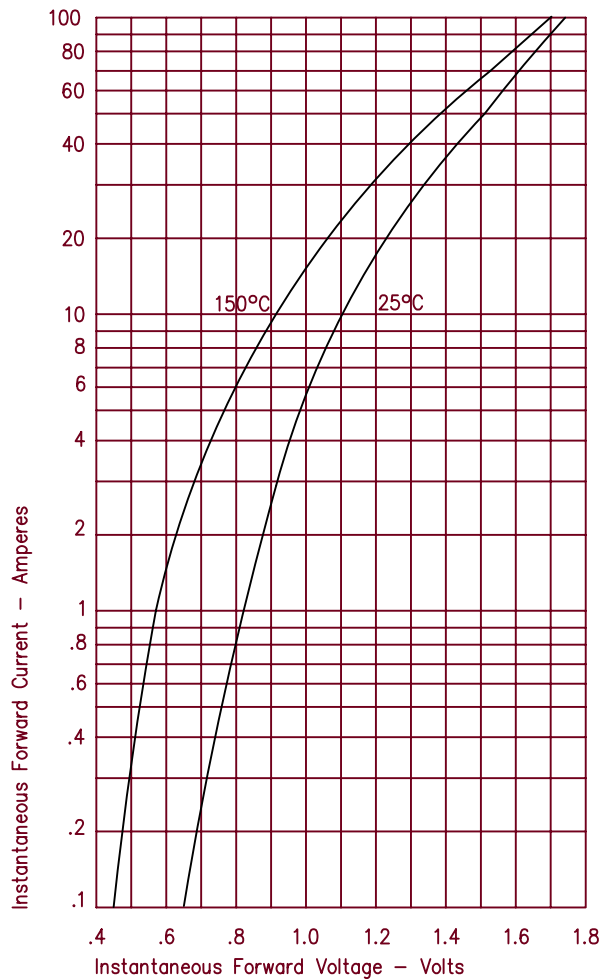


Figure 3  
Typical Junction Capacitance

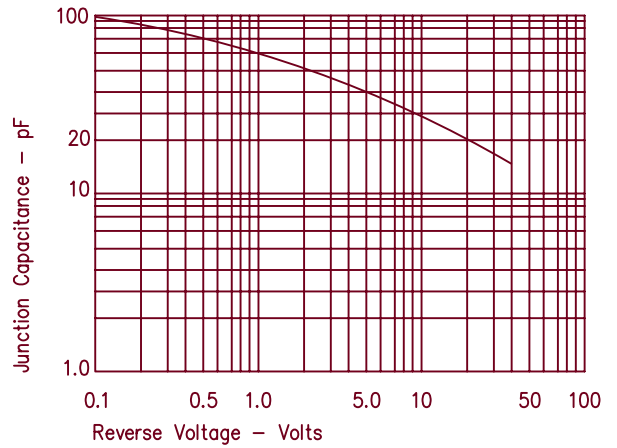


Figure 2  
Typical Reverse Characteristics

