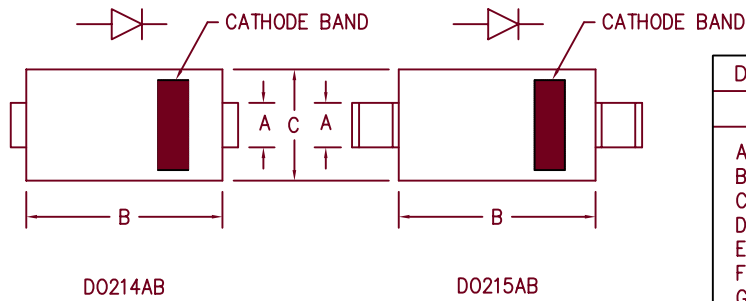
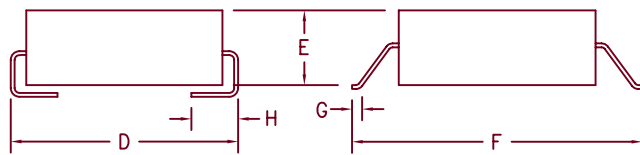


# Ultra Fast Recovery Rectifiers

## UFS510 — UFS520



| 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 | Peak Reverse Voltage | Peak Reverse Voltage |
|--------------------------|----------------------|----------------------|
| UFS510                   | 100V                 | 100V                 |
| UFS515                   | 150V                 | 150V                 |
| UFS520                   | 200V                 | 200V                 |

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

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 100 to 200 Volts
- 5 Amp current rating
- <sup>†</sup>RR 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    | <sup>†</sup> RR 30 ns       | 1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C          |
| Max peak reverse current     | I <sub>RM</sub> 2 mA        | V <sub>R</sub> = 10V, 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> 58 pF        |  |

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

| Thermal and Mechanical Characteristics |                  |                                 |
|--|------------------|---------------------------------|
| Storage temperature range              | T <sub>STG</sub> | -55°C to 175°C                  |
| Operating junction temp range          | T <sub>J</sub>   | -55°C to 175°C                  |
| Maximum thermal resistance             | R <sub>θJL</sub> | 22°C/W Junction to lead         |
| Weight                                 |                  | .008 ounces (.22 grams) typical |



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05-08-07 Rev. 2

# UFS510 — UFS520

Figure 1  
Typical Forward Characteristics

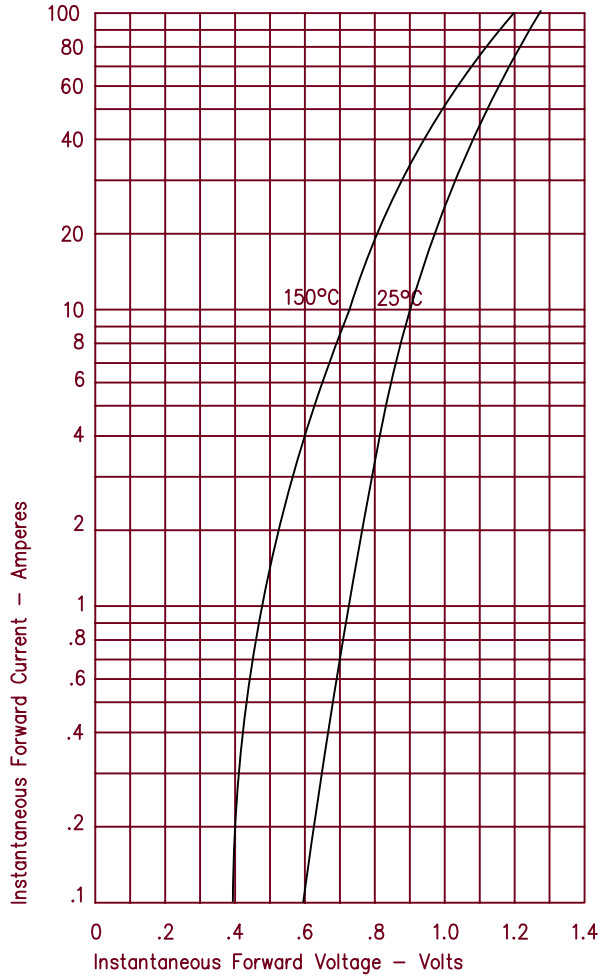


Figure 3  
Typical Junction Capacitance

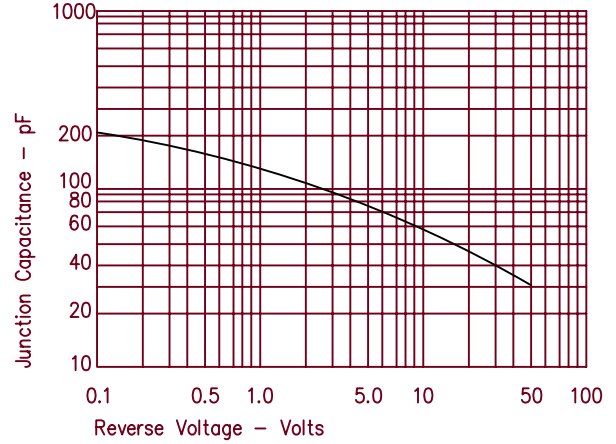


Figure 2  
Typical Reverse Characteristics

