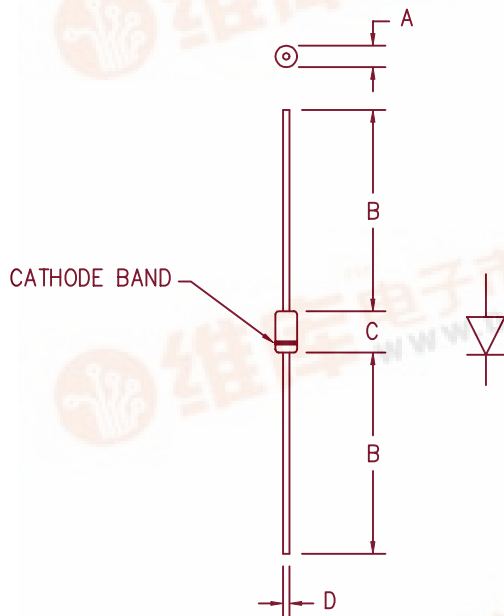


# Ultra Fast Recovery Rectifiers

## UF530 — UF550



|   | Dim. Inches |         | Millimeter |         | Notes |
|---|-------------|---------|------------|---------|-------|
|   | Minimum     | Maximum | Minimum    | Maximum |       |
| A | .188        | .260    | 4.78       | 6.50    | Dia.  |
| B | 1.00        | ---     | 25.4       | ---     |       |
| C | .285        | .375    | 7.24       | 9.52    |       |
| D | .046        | .056    | 1.17       | 1.42    | Dia.  |

PLASTIC D0201AD

| Microsemi<br>Catalog Number | Working<br>Peak Reverse<br>Voltage | Repetitive<br>Peak Reverse<br>Voltage | <ul style="list-style-type: none"> <li>• Ultra Fast Recovery</li> <li>• 175°C Junction Temperature</li> <li>• VRRM 300 to 500 Volts</li> <li>• 5 Amp Current Rating</li> <li>• <sup>t</sup>RR 50 ns Max.</li> </ul> |
|-----------------------------|------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UF530                       | 300V                               | 300V                                  |                                                                                                                                                                                                                     |
| UF540                       | 400V                               | 400V                                  |                                                                                                                                                                                                                     |
| UF550                       | 500V                               | 500V                                  |                                                                                                                                                                                                                     |

| Electrical Characteristics                       |                             |                                                                           |
|--------------------------------------------------|-----------------------------|---------------------------------------------------------------------------|
| Average forward current                          | I <sub>F(AV)</sub> 5.0 Amps | T <sub>A</sub> = 110°C, Square wave, R <sub>θJL</sub> = 11°C/W, L = 1/8"  |
| Average forward current                          | I <sub>F(AV)</sub> 5.0 Amps | T <sub>A</sub> = 90°C, Square wave, R <sub>θJL</sub> = 14.7°C/W, L = 3/8" |
| 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> 1.2 Volts   | I <sub>FM</sub> = 5.0A; 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                                     |
| 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> 28pF         | 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>                            | -55°C to 175°C                   |  |
| Operating junction temp range          | T <sub>J</sub>                              | -55°C to 175°C                   |  |
| Maximum thermal resistance             | L = 1/8" R <sub><math>\theta</math>JL</sub> | 11°C/W Junction to Lead          |  |
|                                        | L = 3/8" R <sub><math>\theta</math>JL</sub> | 14.7°C/W Junction to Lead        |  |
| Weight                                 |                                             | .011 ounces (0.34 grams) typical |  |

# UF530 — UF550

Figure 1  
Typical Forward Characteristics



Figure 3  
Typical Junction Capacitance

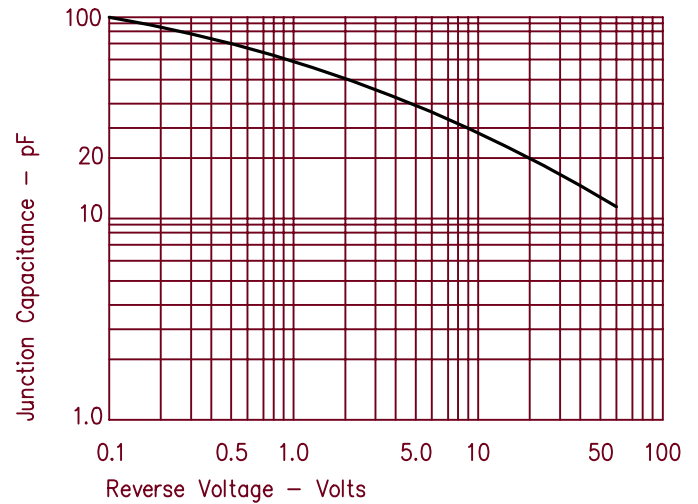


Figure 2  
Typical Reverse Characteristics

