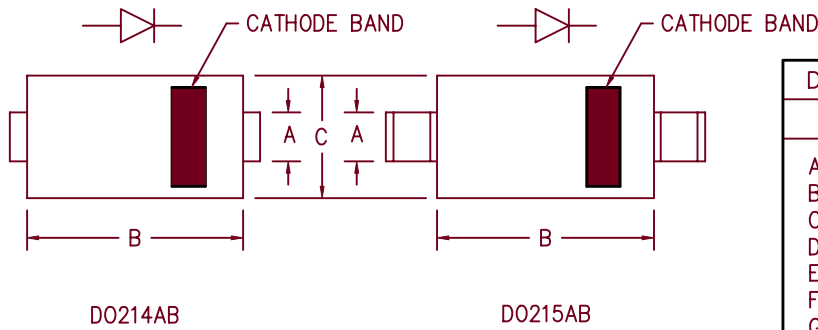
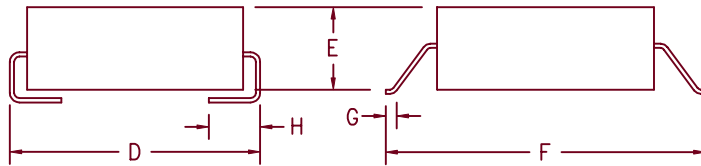


Ultra Fast Recovery Rectifiers UFS305 — UFS320



| 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 | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| *UFS305 | ER3A | 50V | 50V |
| *UFS310 | ER3B | 100V | 100V |
| *UFS315 | | 150V | 150V |
| *UFS320 | ER3D MURS320T3 | 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
- 3 Amp Current Rating
- t_{RR} 30 ns Max.

Electrical Characteristics

| | | |
|------------------------------|---------------------|---------------------------------------|
| Average forward current | $I_F(AV)$ 3.0 Amps | Square wave |
| Maximum surge current | I_{FSM} 100 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max peak forward voltage | V_{FM} .95 Volts | $I_{FM} = 3.0A; T_J = 25^\circ C^*$ |
| Max reverse recovery time | t_{RR} 30 ns | 1/2A, 1A, 1/4A, $T_J = 25^\circ C$ |
| Max peak reverse current | I_{RM} 10 μA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 38 pF | $V_R = 10V, T_J = 25^\circ C$ |

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

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|-----------------|----------------------------------|
| Storage temperature range | T_{STG} | -55°C to 175°C |
| Operating junction temp range | T_J | -55°C to 175°C |
| Maximum thermal resistance | $R_{\theta JL}$ | 25°C/W Junction to lead |
| Weight | | .008 ounces (0.22 grams) typical |

10-1-01 Rev. 2

UFS305 – UFS320

Figure 1
Typical Forward Characteristics

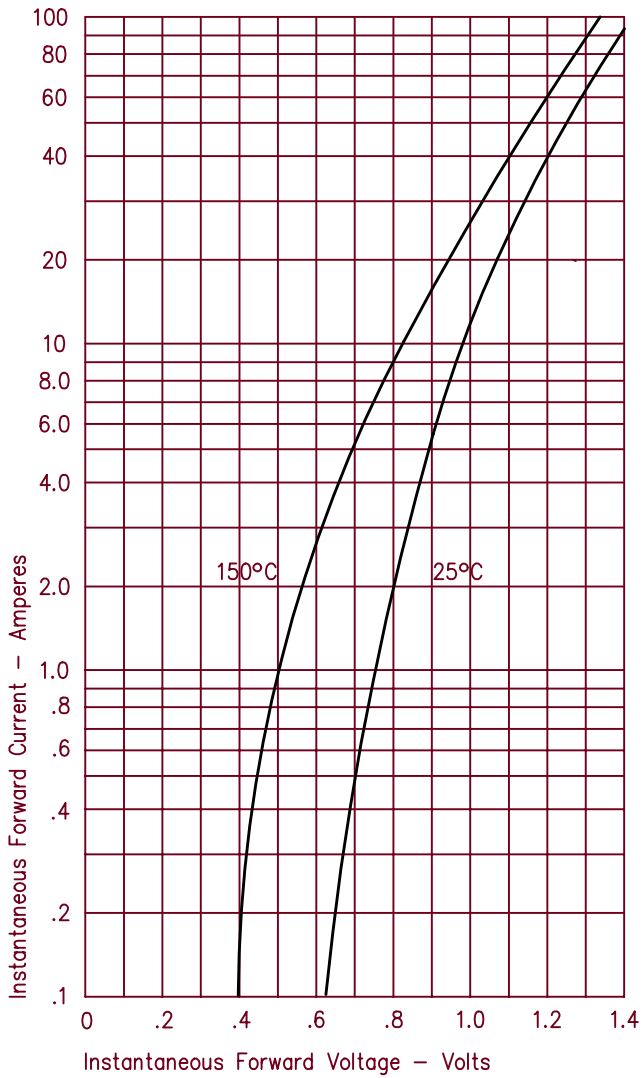


Figure 3
Typical Junction Capacitance

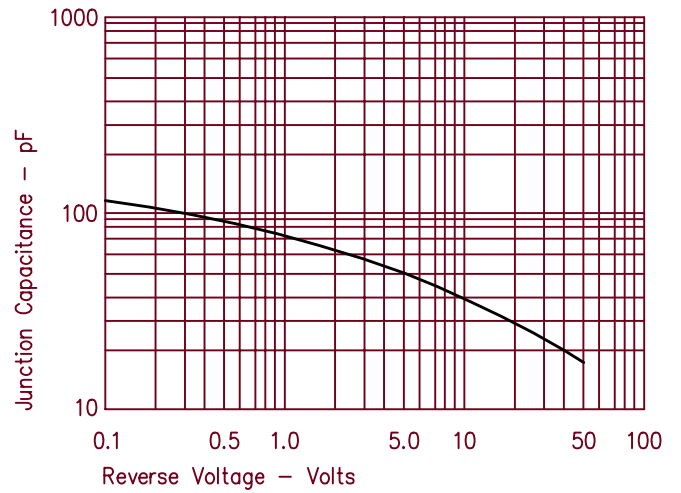


Figure 2
Typical Reverse Characteristics

