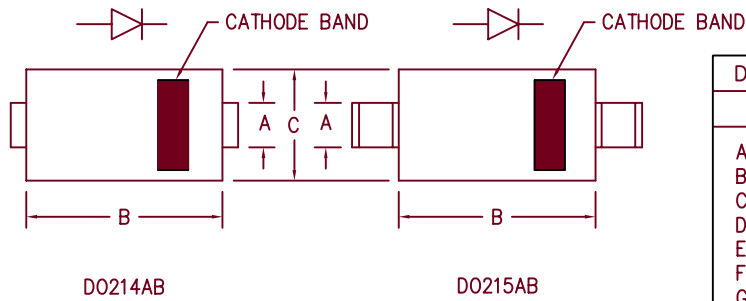
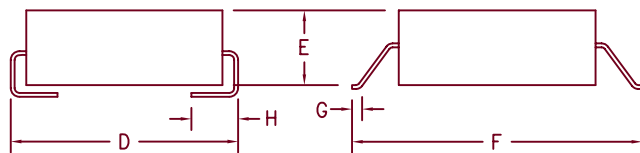


# Ultra Fast Recovery Rectifiers

## 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
- <sup>t</sup>RR 30 ns Max.

### Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 3.0 Amps	Square wave
Maximum surge current	I <sub>FSM</sub> 100 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> = 3.0A; T <sub>J</sub> = 25°C*
Max reverse recovery time	<sup>t</sup> RR 30 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> 38 pF	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	R <sub>θJL</sub>	25°C/W Junction to lead
Weight		.008 ounces (0.22 grams) typical



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05-08-07 Rev. 3

# UFS305 — UFS320

Figure 1  
Typical Forward Characteristics

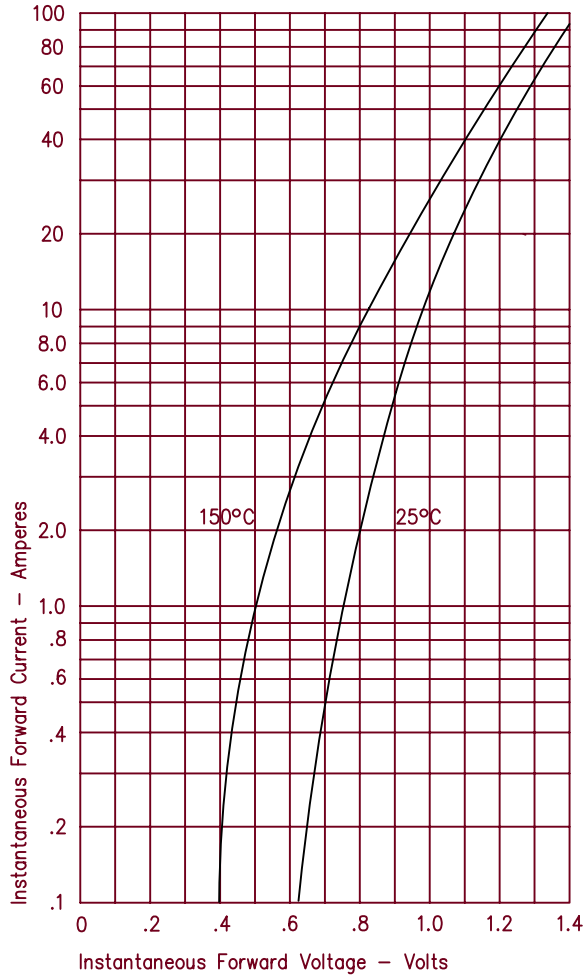


Figure 3  
Typical Junction Capacitance

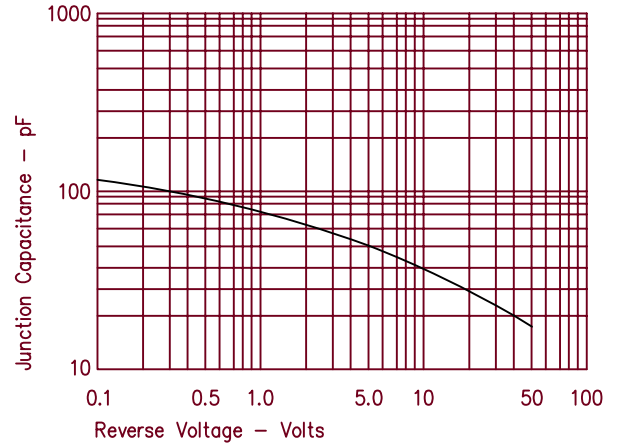


Figure 2  
Typical Reverse Characteristics

