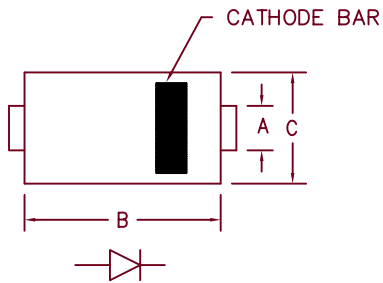
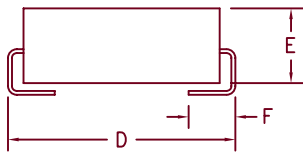


# Ultra Fast Recovery Rectifiers

## UFS105J – UFS120J



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.073	.087	1.85	2.21	
B	.160	.180	4.06	4.57	
C	.130	.155	3.30	3.94	
D	.205	.220	5.21	5.59	
E	.075	.130	1.91	3.30	
F	.030	.060	.760	1.52	



### DO-214BA Package

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UFS105J	ER1A	50V	50V
UFS110J	ER1B	100V	100V
UFS115J		150V	150V
UFS120J	ER1D MURS120T3	200V	200V

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 50 to 200 Volts
- 1 Amp Current Rating
- <sup>†</sup>RR 30ns Max.

### Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 1.0 Amps	T <sub>L</sub> = 145°C, Square wave, R <sub>θJL</sub> = 15°C/W
Maximum surge current	I <sub>FSM</sub> 35 Amps	8.3ms, half sine, T <sub>J</sub> = 175°C
Max peak forward voltage	V <sub>FM</sub> .75 Volts	I <sub>FM</sub> = 0.1A: T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub> .95 Volts	I <sub>FM</sub> = 1.0A: 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> 5 μA	V <sub>R</sub> = 10V, T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 10 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>	15°C/W Junction to lead
Weight		.0047 ounces (.013 grams) typical



8700 East Thomas Road, P.O. Box 1390  
 Scottsdale, AZ 85252  
 PH: (480) 941-6300  
 FAX: (480) 947-1503  
[www.microsemi.com](http://www.microsemi.com)

05-08-07 Rev. 6

# UFS105J — UFS120J

Figure 1  
Typical Forward Characteristics

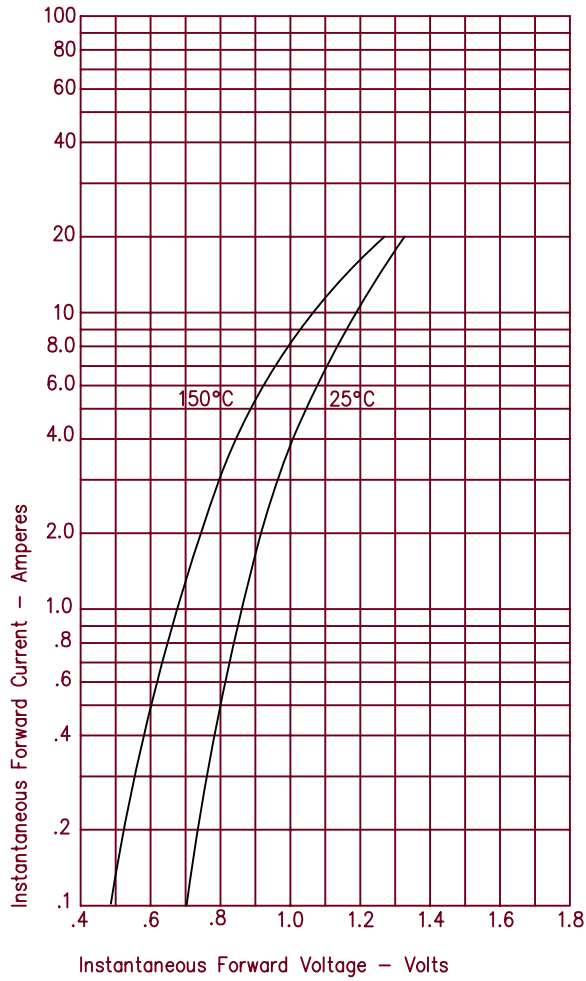


Figure 3  
Typical Junction Capacitance

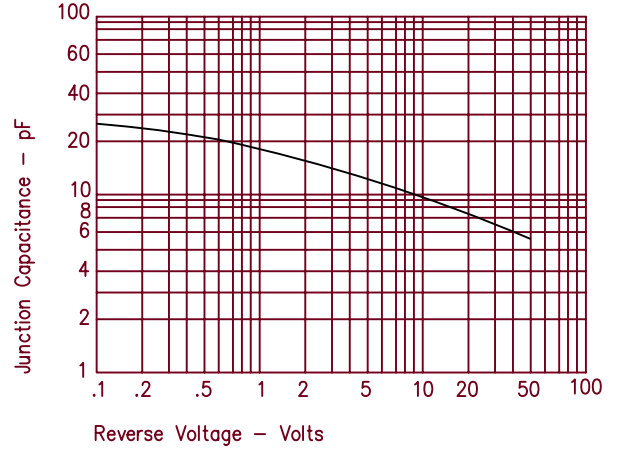
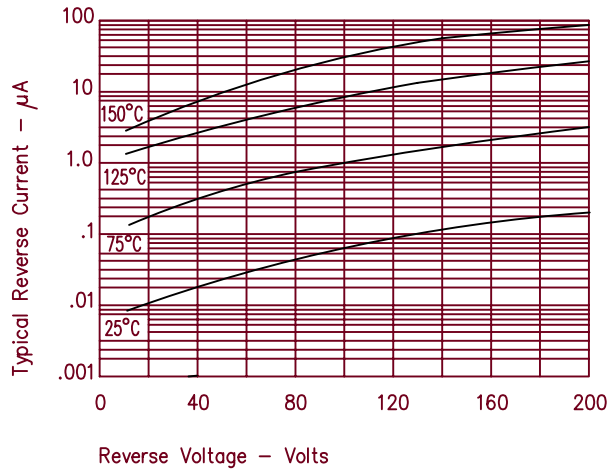


Figure 2  
Typical Reverse Characteristics



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