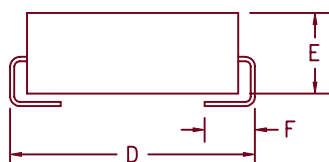
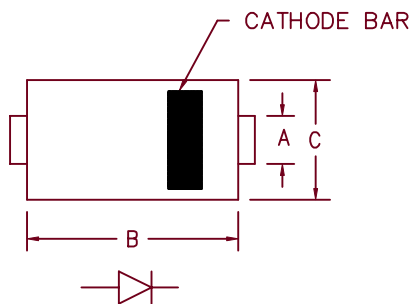


Ultra Fast Recovery Rectifiers

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	

D0-214BA 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
- t_{RR} 30ns Max.

Electrical Characteristics

Average forward current	$I_F(AV)$ 1.0 Amps	$T_L = 145^\circ\text{C}$, Square wave, $R_{\theta JL} = 15^\circ\text{C/W}$
Maximum surge current	I_{FSM} 35 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max peak forward voltage	V_{FM} .75 Volts	$I_{FM} = 0.1A: T_J = 25^\circ\text{C}^*$
Max peak forward voltage	V_{FM} .95 Volts	$I_{FM} = 1.0A: T_J = 25^\circ\text{C}^*$
Max reverse recovery time	t_{RR} 30 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
Max peak reverse current	I_{RM} 5 μA	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 10 pF	$V_R = 10V, T_J = 25^\circ\text{C}$

*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	$R_{\theta JL}$	15°C/W Junction to lead
Weight		.0047 ounces (.013 grams) typical

6-6-03 Rev. 5

UFS105J — UFS120J

Figure 1
Typical Forward Characteristics

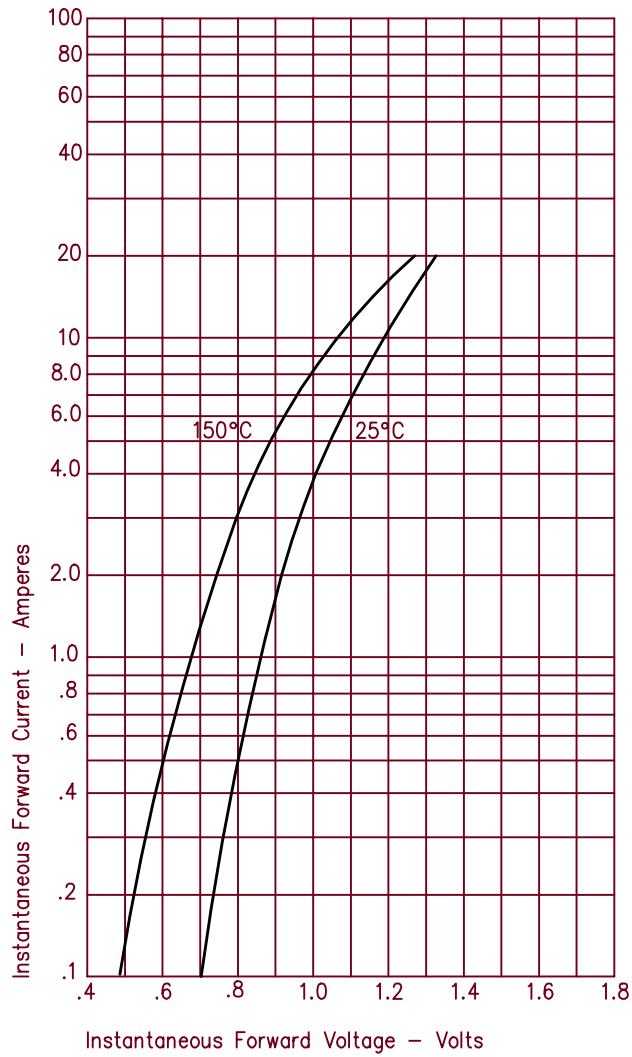


Figure 3
Typical Junction Capacitance

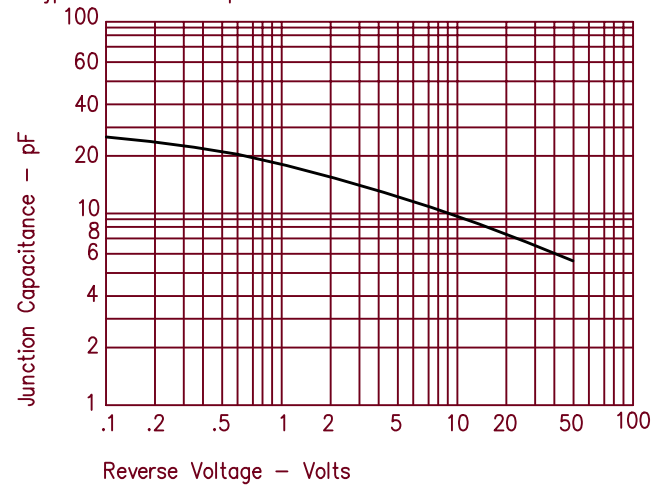


Figure 2
Typical Reverse Characteristics

