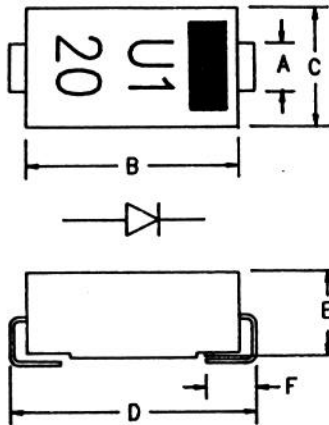


Ultra Fast Recovery Rectifiers

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	.76	1.52	

DO-214BA Package

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage	Device Marking
UFS105J	50V	50V	U105
UFS110J	100V	100V	U110
UFS115J	150V	150V	U115
UFS120J	200V	200V	U120

- Underwriters Laboratory Flammability Class 94V-0
- Ultra Fast Recovery
- 150°C Junction Temperature
- VRRM 50 to 200 Volts
- 1 Amp Current Rating
- ^tRR 30ns Max.
- Low thermal resistance rating

Electrical Characteristics

Average forward current	I _{F(AV)} 1.0 Amps	T _L = 140°C, Square wave, R _{θJL} = 12°C/W
Maximum surge current	I _{FSM} 35 Amps	8.3ms, half sine, T _J = 150°C
Max peak forward voltage	V _{FM} .75 Volts	I _{FM} = 0.1A; T _J = 25°C*
Max peak forward voltage	V _{FM} .95 Volts	I _{FM} = 1.0A; T _J = 25°C*
Max reverse recovery time	^t RR 30 ns	1/2A, 1A, 1/4A, T _J = 25°C
Typical reverse recovery time	^t RR 12 ns	1/2A, 1A, 1/4A, T _J = 25°C
Max peak reverse current	I _{RM} 5 μA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 10 pF	V _R = 10V, T _J = 25°C

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

Thermal and Mechanical Characteristics

Storage temperature range	T _{STG}	-65°C to 150°C
Operating junction temp range	T _J	-65°C to 150°C
Typical thermal resistance	R _{θJL}	12°C/W Junction to lead
Weight		.0047 ounces (.013 grams) typical

Datasheet#: MSC0286A Rev: 10/29/96

10-29-96
PRELIMINARY

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Colorado

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UFS105J — UFS120J

Figure 1
Typical Forward Characteristics

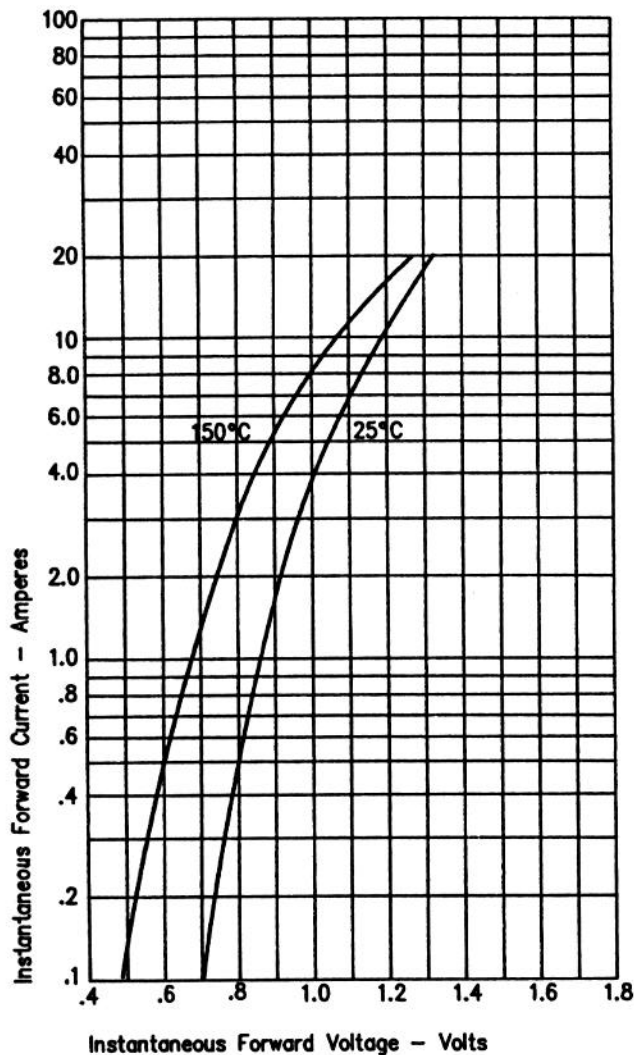


Figure 3
Typical Junction Capacitance

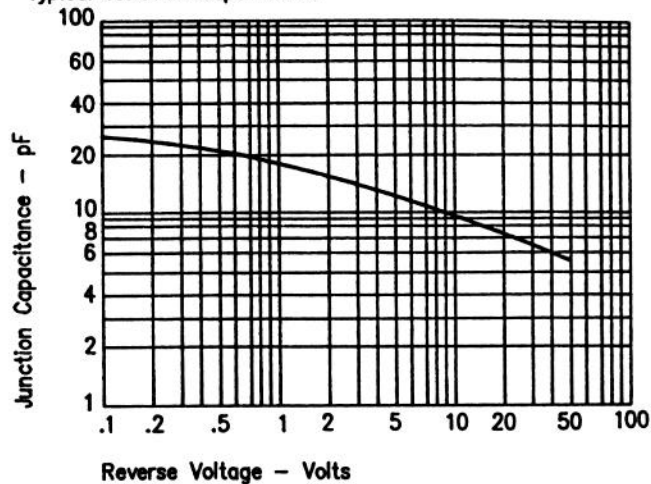


Figure 4
Forward Current Derating

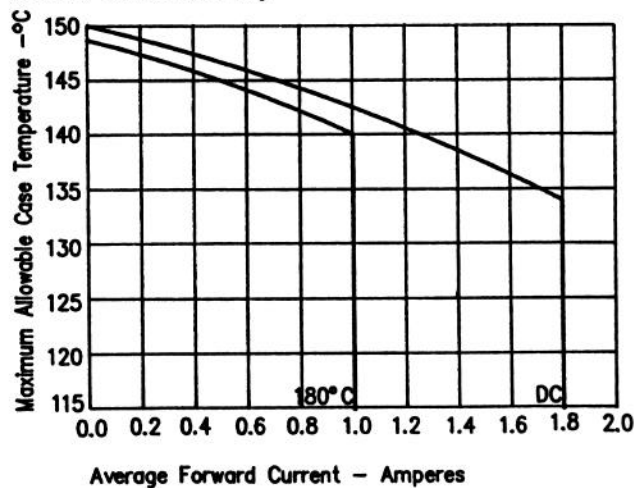


Figure 2
Typical Reverse Characteristics

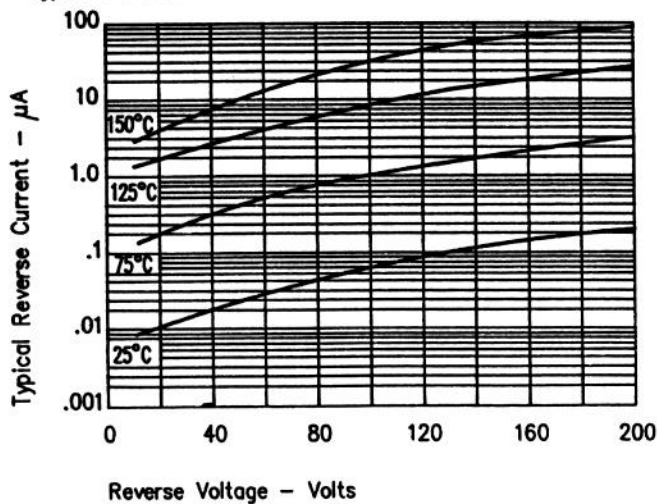


Figure 5
Maximum Nonrepetitive Surge Current

