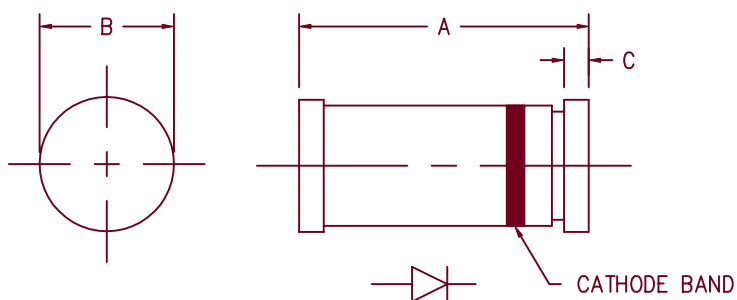


# Ultra Fast Recovery Rectifier UF140SM — UF160SM



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.189	.205	4.80	5.20	
B	.094	.105	2.39	2.66	Dia.
C	.016	.022	.41	.55	

GLASS HERMETIC D0213AB

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UF140SM	400V	400V
UF160SM	600V	600V

- Ultra fast recovery
- 175°C junction temperature
- VRRM 400 to 600 volts
- 1 Amp current rating
- t<sub>RR</sub> 50nS max

## Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 1.0 Amps	T <sub>A</sub> = 130°C Square wave, R <sub>θJEC</sub> = 45°C/W
Maximum surge current	I <sub>FSM</sub> 25 Amps	8.3 ms, half sine, T <sub>J</sub> = 175°C
Max peak forward voltage	V <sub>FM</sub> 1.2 Volts	I <sub>FM</sub> = 1.0A; T <sub>J</sub> = 25°C*
Max reverse recovery time	t <sub>RR</sub> 50 nS	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Max peak reverse current	I <sub>RM</sub> 5 μA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 7 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>	-65°C to 175°C
Operating junction temp range	T <sub>J</sub>	-65°C to 175°C
Maximum thermal resistance	R <sub>θJEC</sub>	45°C/W Junction to end cap
Weight		.004 ounces (0.012 grams) typical

11-20-01 Rev. IR

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Figure 1  
Maximum Forward Characteristics

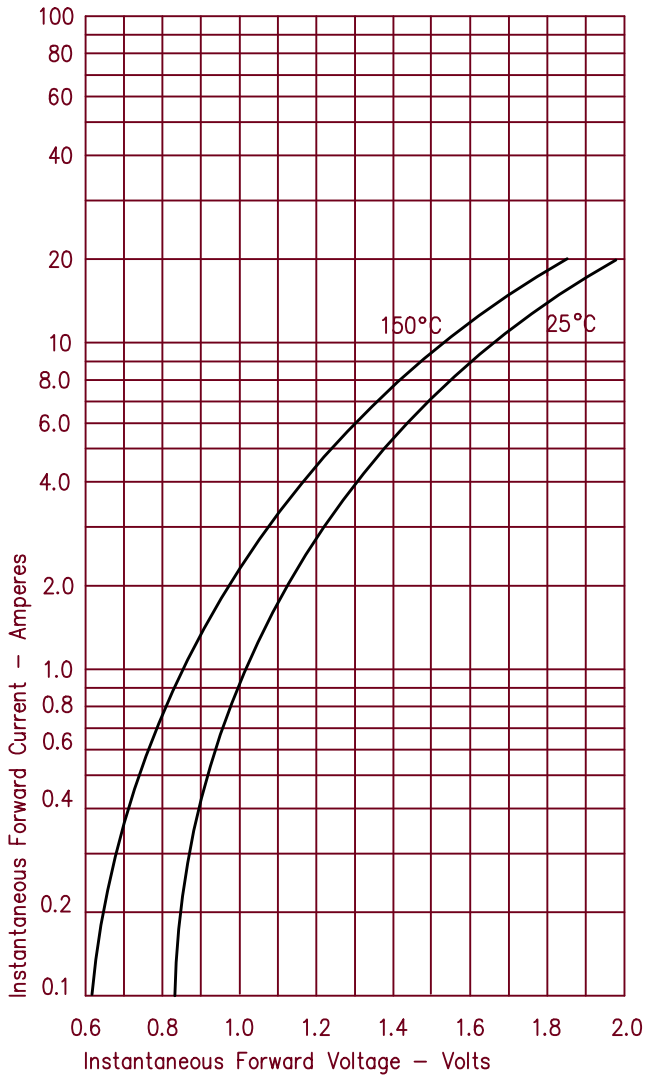


Figure 3  
Typical Junction Capacitance

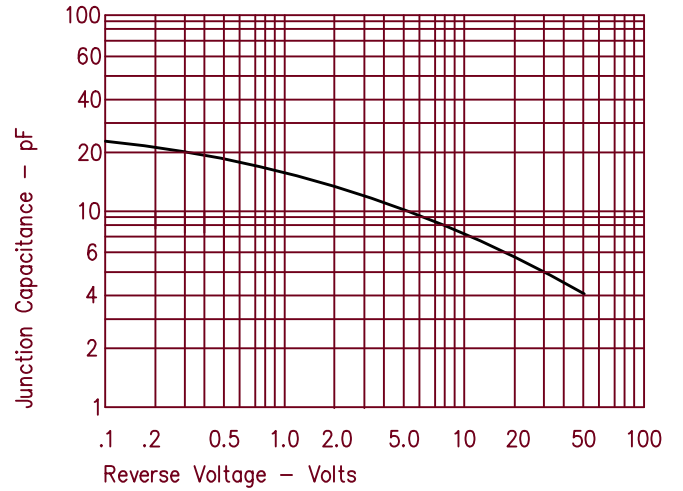


Figure 2  
Typical Reverse Characteristics

