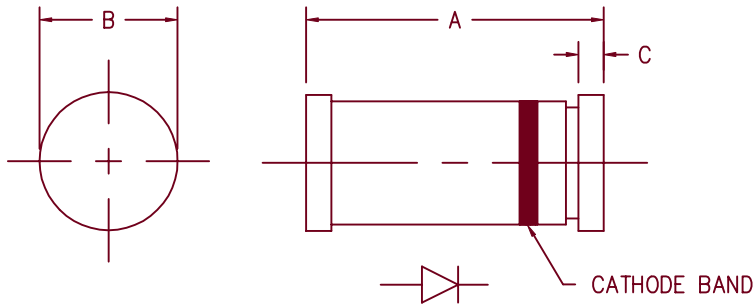


# Ultra Fast Recovery Rectifier UF110SM — UF120SM



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

GLASS HERMETIC D0213AB

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UF110SM	100V	100V
UF115SM	150V	150V
UF120SM	200V	200V

- Ultra fast recovery
- 175°C junction temperature
- $V_{RRM}$  100 to 200 volts
- 1 Amp current rating
- $t_{RR}$  30nS max

## Electrical Characteristics

Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 130^\circ\text{C}$ Square wave, $R_{\theta JC} = 45^\circ\text{C/W}$
Maximum surge current	$I_{FSM}$ 25 Amps	8.3 ms, half sine, $T_J = 175^\circ\text{C}$
Max peak forward voltage	$V_{FM}$ 1.0 Volts	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
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 $\mu\text{A}$	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 7 pF	$V_R = 10\text{V}, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range	$T_{STG}$	$-65^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-65^\circ\text{C}$ to $175^\circ\text{C}$
Maximum thermal resistance	$R_{\theta JC}$	$45^\circ\text{C/W}$ Junction to end cap
Weight		.004 ounces (0.012 grams) typical

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Figure 1  
Maximum Forward Characteristics

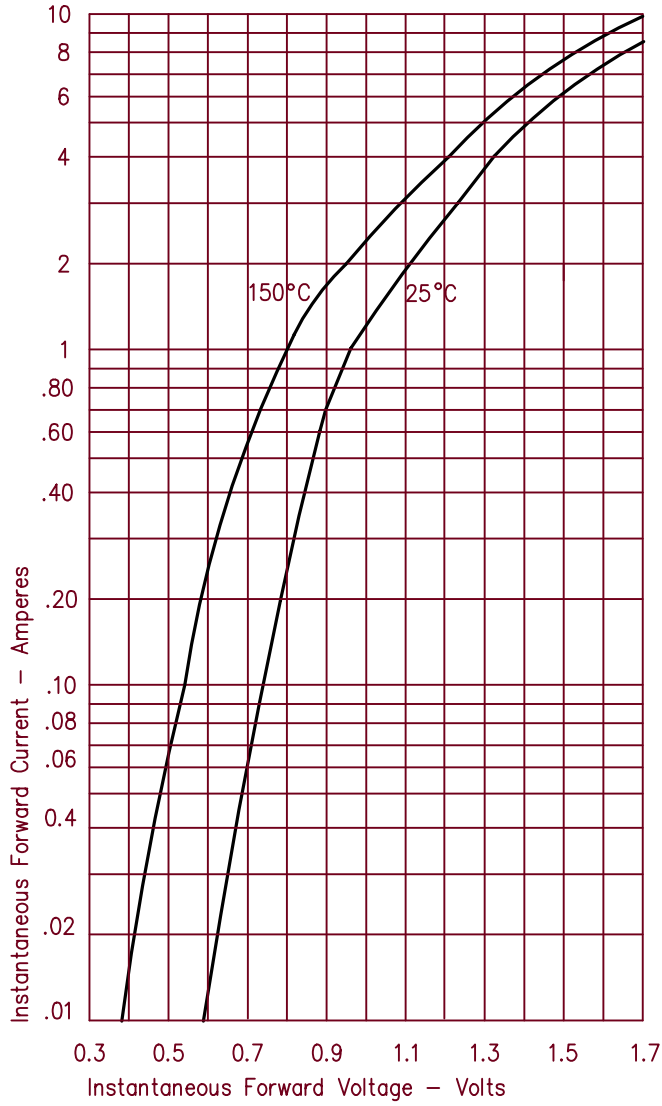


Figure 3  
Typical Junction Capacitance

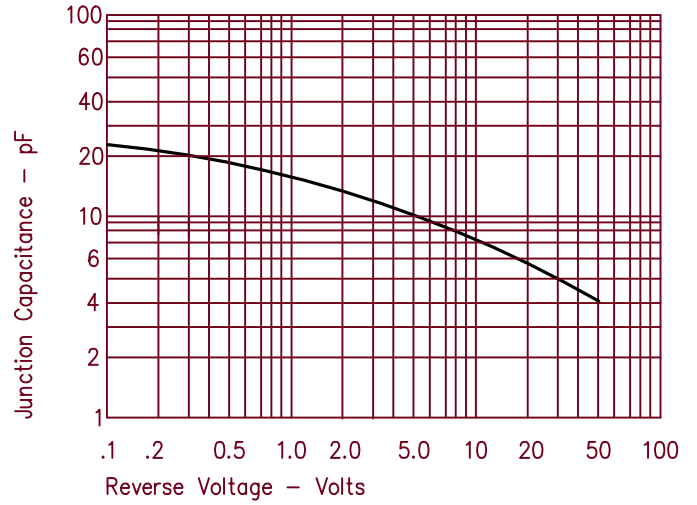


Figure 2  
Typical Reverse Characteristics

