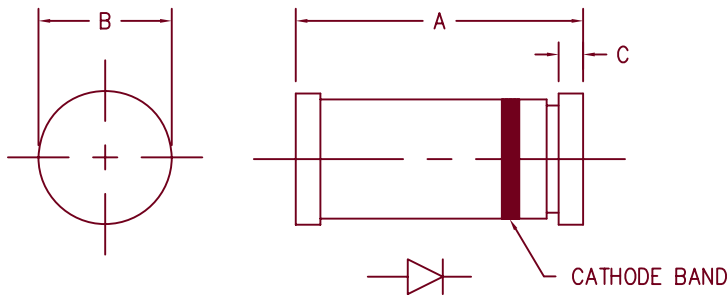


Ultra Fast Recovery Rectifier UF140SM — UF160SM



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 DO213AB

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

- Ultra fast recovery
- 175°C junction temperature
- V_{RRM} 400 to 600 volts
- 1 Amp current rating
- t_{RR} 50nS max

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 130^\circ\text{C}$ Square wave, $R_{\theta JEC} = 45^\circ\text{C/W}$
Maximum surge current	I_{FSM} 25 Amps	8.3 ms, half sine, $T_J = 175^\circ\text{C}$
Max peak forward voltage	V_{FM} 1.2 Volts	$I_{FM} = 1.0A; T_J = 25^\circ\text{C}^*$
Max reverse recovery time	t_{RR} 50 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 7 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}	-65°C to 175°C
Operating junction temp range	T_J	-65°C to 175°C
Maximum thermal resistance	$R_{\theta JEC}$	45°C/W Junction to end cap
Weight		.004 ounces (0.012 grams) typical



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

05-04-07 Rev. 1

UF140SM — UF160SM

Figure 1
Maximum Forward Characteristics

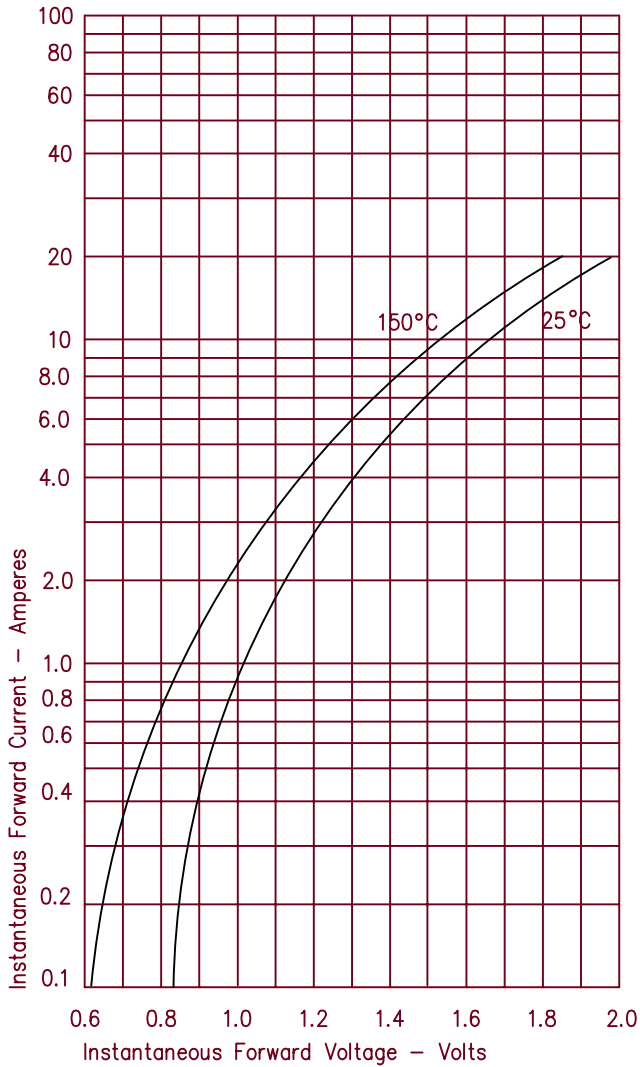


Figure 2
Typical Reverse Characteristics

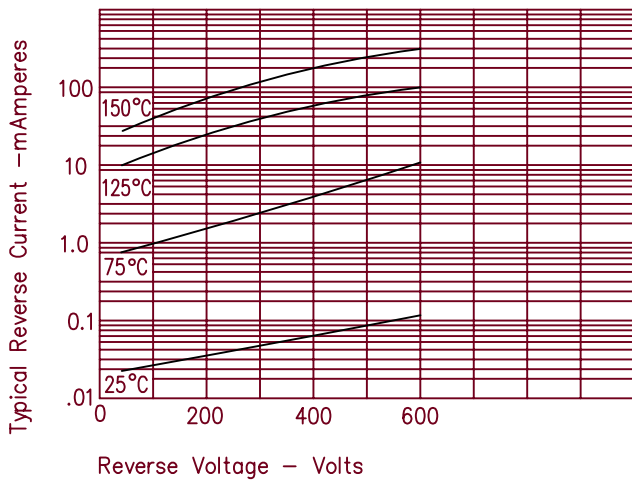


Figure 3
Typical Junction Capacitance

