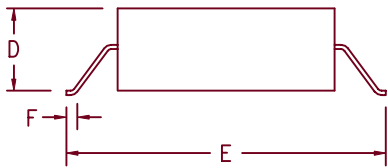
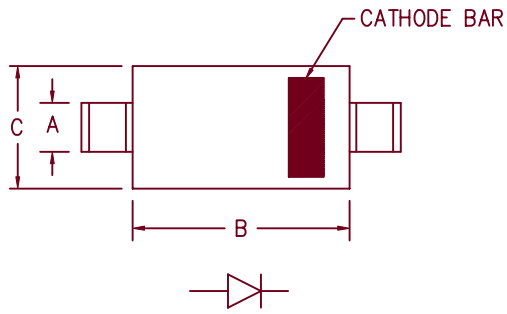


# 1 Amp Fast Recovery Rectifier MFS112 — MFS116



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.081	.087	2.06	2.21	
B	.160	.180	4.06	4.57	
C	.130	.155	3.30	3.94	
D	.075	.095	1.90	2.41	
E	.270	.290	6.86	7.37	
F	.015	.030	.381	.762	

DO-215AA

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
MFS112	1200V	1200V
MFS114	1400V	1400V
MFS116	1600V	1600V

- Fast Recovery Rectifier
- Surface Mount Package
- VRRM 1200 to 1600 Volts
- $t_{RR}$  500ns Max.
- 175°C Junction Temperature

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_L = 102^\circ C$ , Square wave, $R_{\theta JL} = 20^\circ C/W$
Maximum surge current	$I_{FSM}$ 25 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max peak forward voltage	$V_{FM}$ 1.6 Volts	$I_{FM} = 1A; T_J = 25^\circ C^*$
Max peak reverse current	$I_{RM}$ 1.5 mA	$V_{RRM, T_J} = 125^\circ C$
Max peak reverse current	$I_{RM}$ 10 $\mu A$	$V_{RRM, T_J} = 25^\circ C$
Max reverse recovery time	$t_{RR}$ 500 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 6.5 pF	$T_J = 25^\circ C, V_R = 10V$

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

Thermal and Thermal 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	$R_{\theta JL}$	20°C/W Junction to lead
Weight		.0047 ounces (.013 grams) typical

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# MFS112 — MFS116

Figure 1  
Typical Forward Characteristics

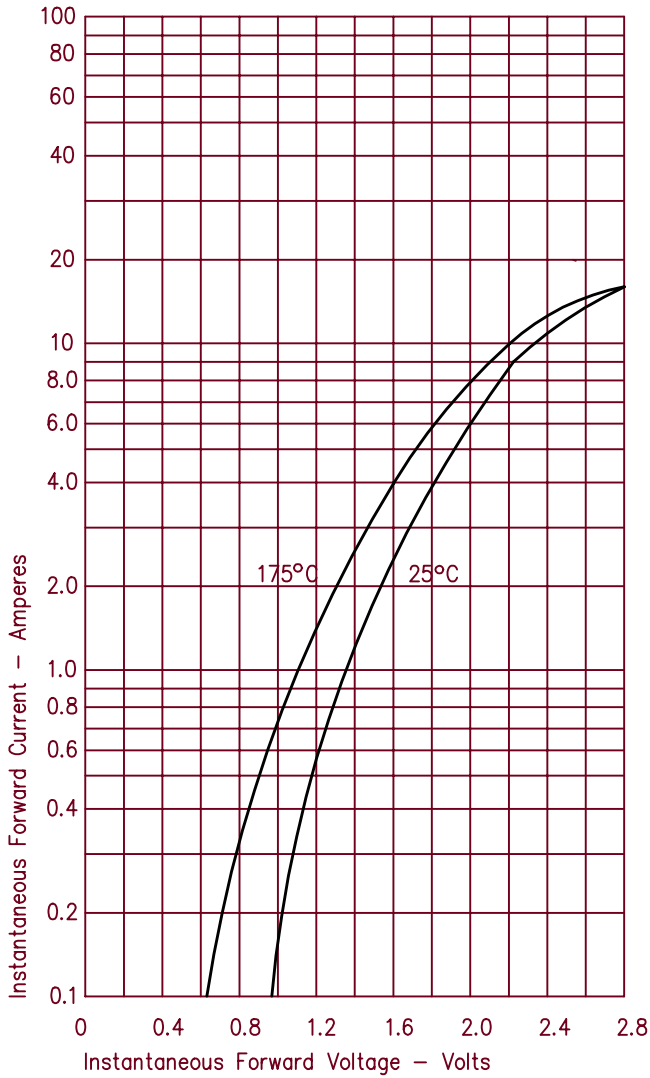


Figure 3  
Typical Junction Capacitance

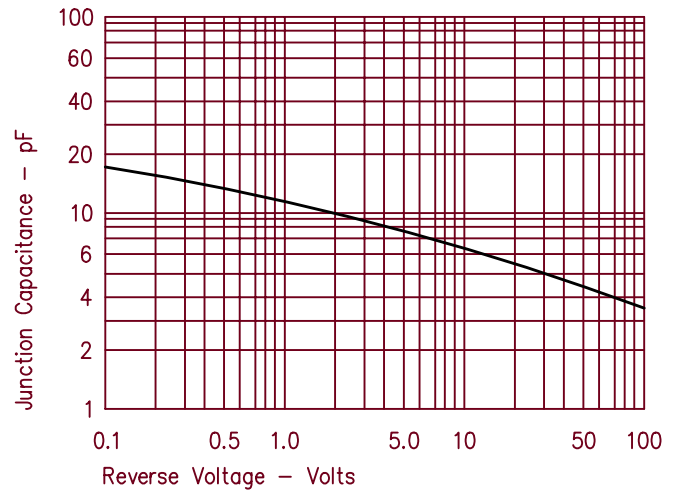


Figure 2  
Typical Reverse Characteristics

