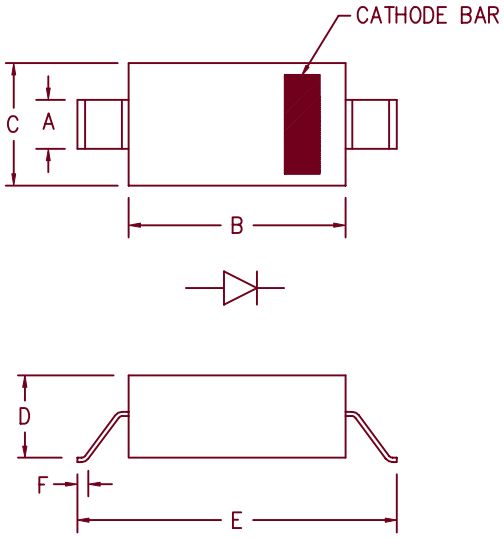
1 Amp Fast Recovery Rectifier
MFS112 – MFS116



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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
- V_{RRM} 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°C, Square wave, $R_{\theta JL}$ = 20°C/W
Maximum surge current	I_{FSM} 25 Amps	8.3ms, half sine, T_J = 175°C
Max peak forward voltage	V_{FM} 1.6 Volts	I_{FM} = 1A; T_J = 25°C*
Max peak reverse current	I_{RM} 1.5 mA	V_{RRM}, T_J = 125°C
Max peak reverse current	I_{RM} 10 µA	V_{RRM}, T_J = 25°C
Max reverse recovery time	t_{RR} 500 ns	1/2A, 1A, 1/4A, T_J = 25°C
Typical junction capacitance	C_J 6.5 pF	T_J = 25°C, V_R = 10V

*Pulse test: Pulse width 300 µsec, 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

5–16–01 Rev. 1

COLORADO Microsemi
800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

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Figure 1
Typical Forward Characteristics

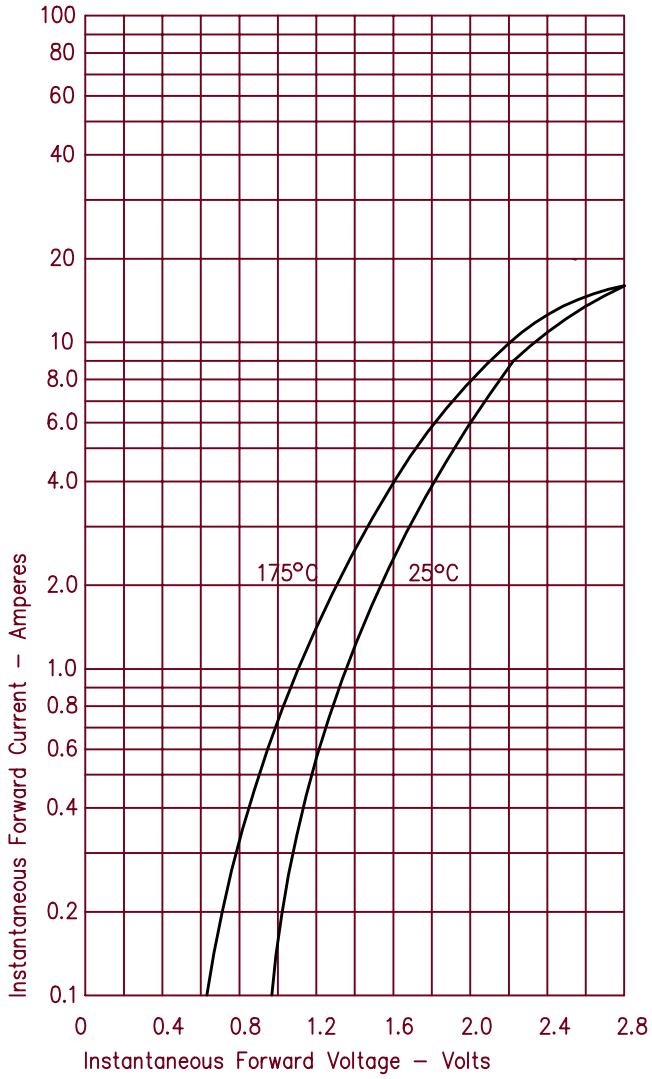

Figure 2
Typical Reverse Characteristics

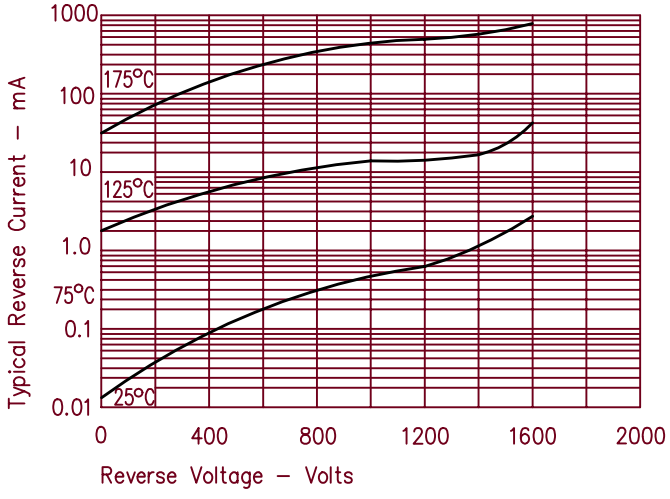

Figure 3
Typical Junction Capacitance