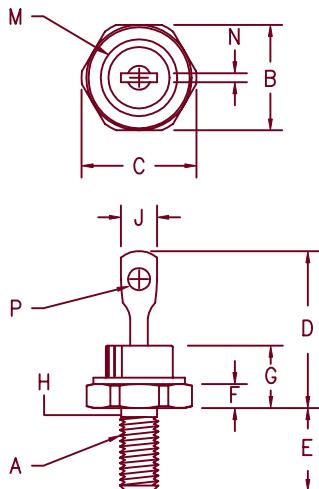


Fast Recovery Rectifier

1N3889 — 1N3893



Notes:

1. 10-32 UNF3A threads
2. Full threads within 2 1/2 threads
3. Standard Polarity: Stud is Cathode
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	.424	.437	10.77	11.10	
C	---	.505	---	12.82	
D	---	.800	---	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.90	4.44	
G	---	.405	---	10.29	
H	.163	.189	4.14	4.80	2
J	---	.250	---	6.35	
M	---	.424	---	10.77	Dia.
N	.020	.065	.510	1.65	
P	.060	---	1.52	---	Dia.

D0203AA (D04)

Microsemi Catalog Number	Working Reverse Voltage	Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N3889*	50V	50V	
1N3890*	100V	100V	
1N3891*	200V	200V	
1N3892*	300V	300V	
1N3893*	400V	400V	

*Add Suffix R For Reverse Polarity

- Fast Recovery Rectifier
- 175°C Junction Temperature
- V_{RRM} 100 to 400 Volts
- 12 Amps Current Rating

Electrical Characteristics

Average forward current	I _{F(AV)} 12 Amps	T _C = 100°C, Square wave, R _{θJC} = 2.0°C/W
Maximum surge current	I _{FSM} 175 Amps	8.3 ms, half sine T _C = 100°C
Max peak forward voltage	V _{FM} 1.50 Volts	I _{FM} = 38A T _J = 25°C*
Max peak reverse current	I _{RM} 2 mA	V _{RRM} , T _J = 150°C
Max peak reverse current	I _{RM} 10 μA	V _{RRM} , T _J = 25°C
Max reverse recovery time	t _{RR} 200 ns	I _F = 1A dc, V _R = 30V, di/dt = 25A/us, T _C = 55°C
Typical junction capacitance	C _J 115 pF	V _R = 10V, f = 1Mhz, T _J = 25°C

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T _{STG}	-65°C to 175°C
Operating junction temp range	T _J	-65°C to 150°C
Max thermal resistance	R _{θJC}	2.0°C/W Junction to case
Mounting torque		12-15 inch pounds
Weight		.16 ounces (5.0 grams) typical

1N3889 - 1N3893

Figure 1
Typical Forward Characteristics

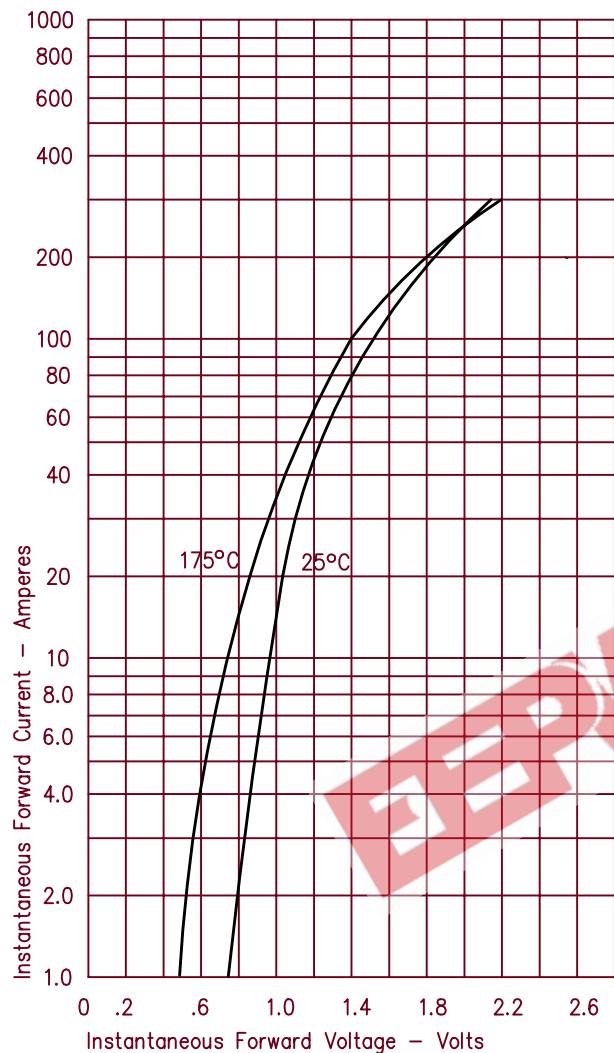


Figure 3
Typical Junction Capacitance

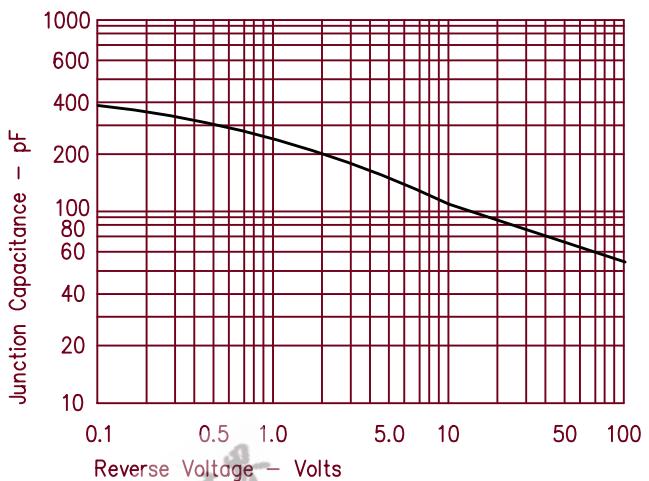


Figure 4
Forward Current Derating

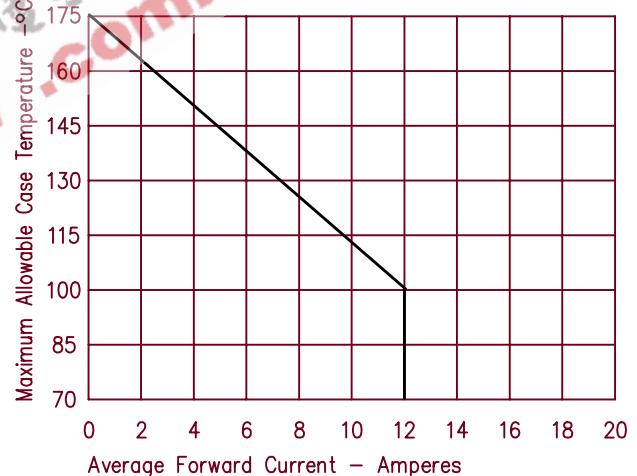


Figure 2
Typical Reverse Characteristics

