

1N3889 thru 1N3893

MR1376



SOLID STATE INC.

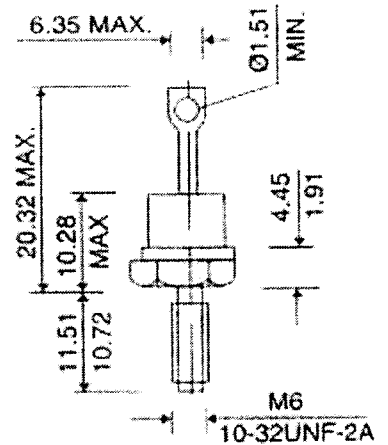
46 FARRAND STREET
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

**FAST RECOVERY
POWER RECTIFIERS**

**50-600 VOLTS
12 AMPERES**

DO-4



***MAXIMUM RATINGS**

Rating	Symbol	1N3889	1N3890	1N3891	1N3892	1N3893	MR1376	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	300	400	600	Volts
Working Peak Reverse Voltage	V _{RWM}							
DC Blocking Voltage	V _R							
Non-Repetitive Peak Reverse Voltage	V _{RSM}	75	150	250	350	450	650	Volts
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	210	280	420	Volts
Average Rectified Forward Current (Single phase, resistive load, T _C = 100°C)	I _O	12						Amps
Non-Repetitive Peak Surge Current (Surge applied at rated load conditions)	I _{FSM}	200 (one cycle)						Amp
Operating Junction Temperature Range	T _J	-65 to +150						°C
Storage Temperature Range	T _{stg}	-65 to +175						°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	2.0	°C/W

***ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	Min	Typ	Max	Unit	
Instantaneous Forward Voltage (I _F = 38 Amp, T _J = 150°C)	V _F	-	1.2	1.5	Volts	
Forward Voltage (I _F = 12 Amp, T _C = 25°C)	V _F	-	1.0	1.4	Volts	
Reverse Current (rated dc voltage)	I _R	T _C = 25°C	-	10	25	μA
		T _C = 100°C	-	0.5	3.0	mA

***REVERSE RECOVERY CHARACTERISTICS**

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time (I _F = 1.0 Amp to V _R = 30 Vdc, Figure 16)	t _{rr}	-	100	200	ns
(I _{FM} = 36 Amp, di/dt = 25 A/μs, Figure 17)		-	200	400	
Reverse Recovery Current (I _F = 1.0 Amp to V _R = 30 Vdc, Figure 16)	I _{RM(REC)}	-	-	2.0	Amp

POLARITY: Cathode to Case. Reverse Polarity available by adding Suffix "R" to type number.