

1N3889 thru 1N3893

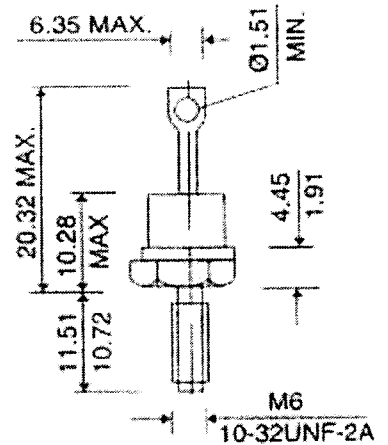
MR1376

S SOLID STATE INC.
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**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.