

**MOTOROLA SEMICONDUCTOR TECHNICAL DATA**

**MR830 MR831  
MR832 MR834  
MR836**

**HERMETICALLY SEALED, AXIAL LEAD MOUNTED FAST RECOVERY POWER RECTIFIERS**

... designed for special applications such as dc power supplies, inverters, converters, ultrasonic systems, choppers, low RF interference and free wheeling diodes. A complete line of fast recovery rectifiers having typical recovery time of 150 nanoseconds providing high efficiency at frequencies to 250 kHz.

**FAST RECOVERY POWER RECTIFIERS**

**50-600 VOLTS  
3 AMPERES**

**3**

**MAXIMUM RATINGS**

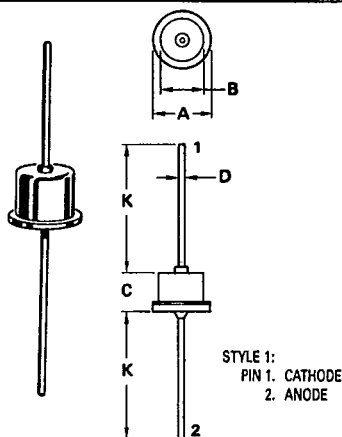
Rating	Symbol	MR830	MR831	MR832	MR834	MR836	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	Volts
Working Peak Reverse Voltage	V <sub>RWM</sub>						
DC Blocking Voltage	V <sub>R</sub>						
Average Rectified Forward Current (Single phase, resistive load, T <sub>C</sub> = 100°C)	I <sub>O</sub>	← 3.0 →					Amps
Non-Repetitive Peak Surge Current (surge applied at rated load conditions)	I <sub>FSM</sub>	← 100 →					Amps
Operating Junction Temperature Range	T <sub>J</sub>	← -65 to +150 →					°C
Storage Temperature Range	T <sub>stg</sub>	← -65 to +175 →					°C

**ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	Min	Max	Unit
Forward Voltage (I <sub>F</sub> = 3.0 A dc, T <sub>A</sub> = 25°C)	V <sub>F</sub>	-	1.1	Volts
Reverse Current (rated DC Voltage, T <sub>A</sub> = 25°C)	I <sub>R</sub>	-	0.5	mA
(T <sub>A</sub> = 100°C)		-	1.5	

**REVERSE RECOVERY CHARACTERISTICS**

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time (I <sub>F</sub> = 1.0 Amp to V <sub>R</sub> = 30 Vdc)	t <sub>rr</sub>	-	150	200	ns
(I <sub>FM</sub> = 15 Amp, di/dt = 25 A/μs)		-	150	300	ns
Reverse Recovery Current (I <sub>F</sub> = 1.0 Amp to V <sub>R</sub> = 30 Vdc)	I <sub>RM(REC)</sub>	-	-	2.0	Amp



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	-	11.43	-	0.450
B	-	8.89	-	0.350
C	-	7.62	-	0.300
D	1.17	1.42	0.046	0.056
K	24.89	-	0.980	-

**CASE 60-01 METAL**

**MECHANICAL CHARACTERISTICS**

**CASE:** Welded, hermetically sealed  
**FINISH:** All external surfaces corrosion resistant and leads readily solderable  
**POLARITY:** Cathode to Case  
**WEIGHT:** 2.4 Grams (Approximately)