

## Ultrafast Recovery Rectifier

## FMG36S

### FEATURES

- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 150°C Operating Junction Temperature
- High Temperature Glass Passivated Junction

### MECHANICAL CHARACTERISTICS

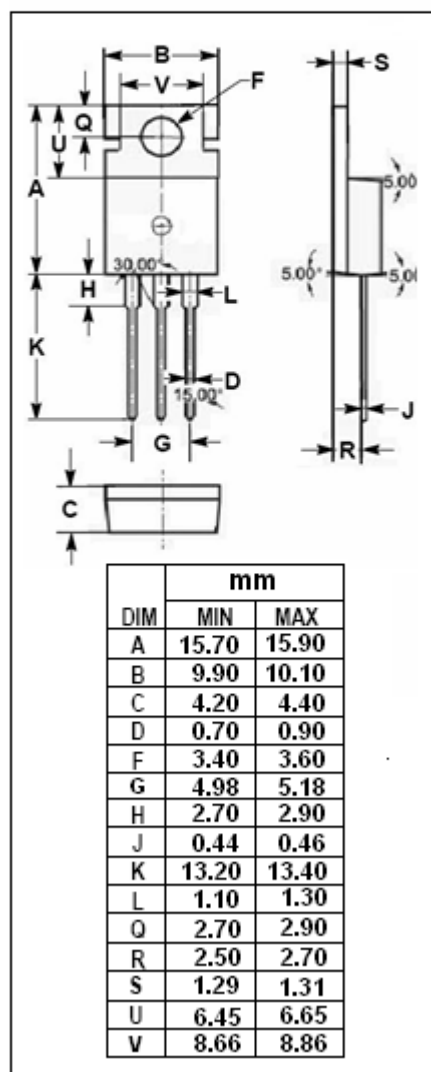
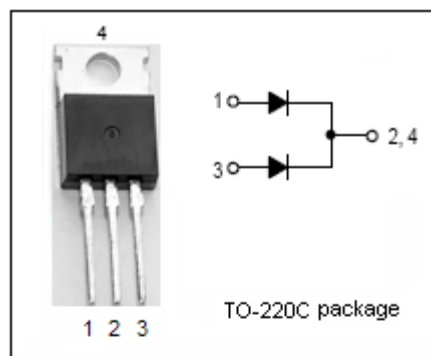
- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

### APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current <b>Per Leg</b> (Rated $V_R$ ) <b>Total Device</b>	7.5 15	A
$I_{FM}$	Peak Repetitive Forward Current(Rated $V_R$ , Square Wave,20kHz) <b>Per Diode Leg</b>	15	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	80	A
$T_J$	Junction Temperature	-40~150	°C
$T_{stg}$	Storage Temperature Range	-40~150	°C



## Ultrafast Recovery Rectifier

## FMG36S

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}C$ ) (Pulse Test: Pulse Width=300  $\mu$  s, Duty Cycle $\leq$ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=7.5A$	2.2	V
$I_R$	Maximum Instantaneous Reverse Current	$V_{RRM}=600V$	3	$\mu A$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.1A, I_{RP}=0.1A$	100	ns
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.1A, I_{RP}=0.2A$	50	ns