

# Fast Recovery Rectifier

# HFR15A06F

## FEATURES

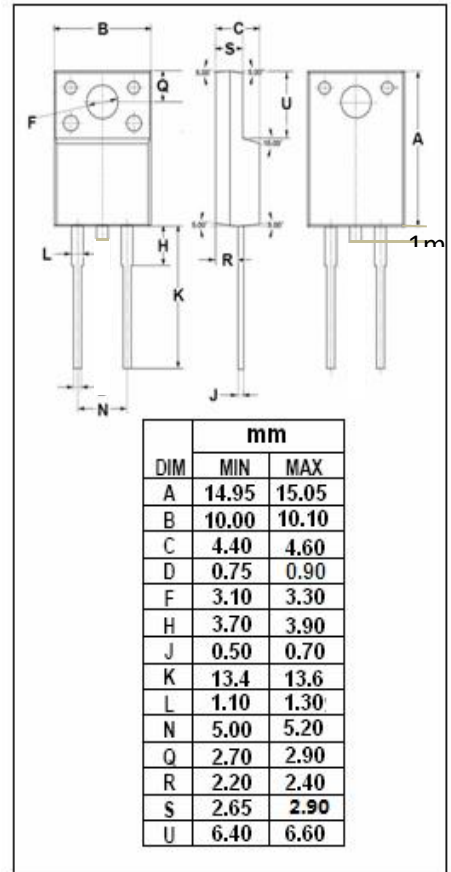
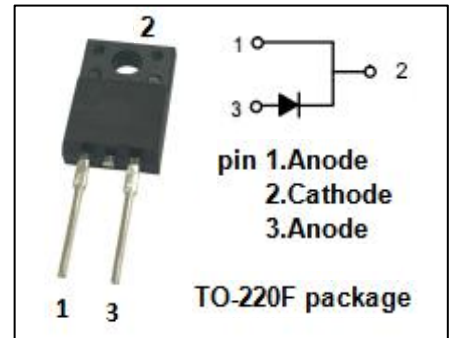
- Fast switching for high efficiency
- Reverse voltage
- Avalanche energy rated
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose

## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>VRWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	15	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	200	A
P <sub>D</sub>	Maximum power dissipation	100	W
T <sub>J</sub>	Junction Temperature	-55~175	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F^*$	Maximum Instantaneous Forward Voltage	$I_F=15\text{A}; T_j=25^\circ\text{C}$ $I_F=15\text{A}; T_j=150^\circ\text{C}$	2.4 2	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM};$ $V_R=V_{RWM}; T_j=150^\circ\text{C}$	10 500	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=15\text{A}; di/dt=200\text{A}/\mu\text{s}$	30	ns

\*:Pulse test ,Pulse width=300us,duty cycle $\leq$ 2%

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