

**Ultrafast Recovery Rectifier**
**STTH12R06FP**
**FEATURES**

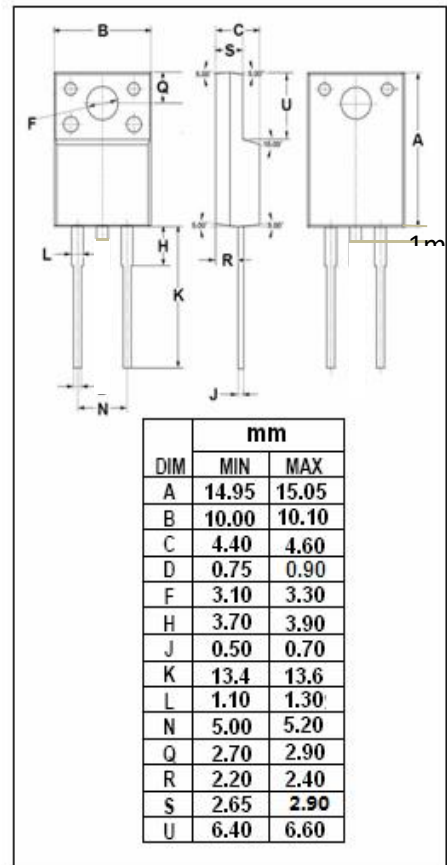
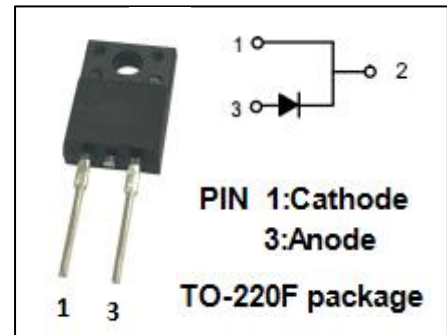
- Low forward voltage drop
- High Current Capability
- High reliability
- High surge Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in power supplies and power conversions System, motor drive, and other power applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</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 (Rated V <sub>R</sub> )	12	A
I <sub>FSM</sub>	Non repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
T <sub>J</sub>	Max. Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C




## Ultrafast Recovery Rectifier

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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	4.4	°C/W

ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C) (Pulse Test: Pulse Width=300 μs, Duty Cycle ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Instantaneous Forward Voltage 	I <sub>F</sub> = 12A I <sub>F</sub> = 12A; T <sub>J</sub> =125°C	2.9 1.8	V
I <sub>R</sub>	Instantaneous Reverse Current	V <sub>RRM</sub> = 600V V <sub>RRM</sub> = 600V; T <sub>J</sub> =125°C	45 600	μA
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =0.5A I <sub>r</sub> =1A I <sub>rr</sub> =0.25A	45	ns

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