

**Ultrafast Recovery Rectifier**

**STTH8S06FP**

**FEATURES**

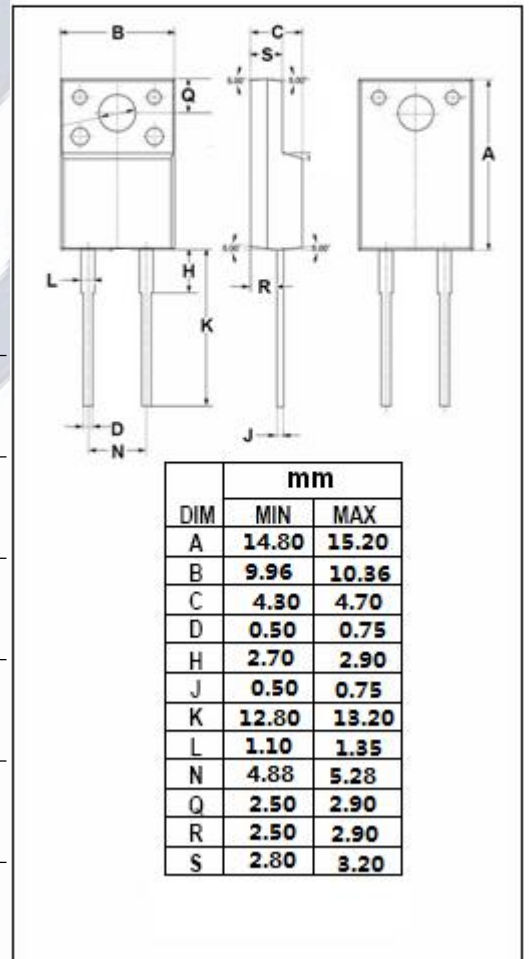
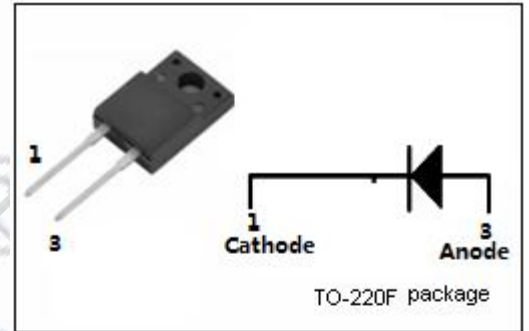
- Low forward voltage drop
- High Current Capability
- High reliability
- High surge Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**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> )	8	A
I <sub>FSM</sub>	Non repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	60	A
T <sub>J</sub>	Max. Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	°C



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>thj-c</sub>	Thermal Resistance, Junction to Case	5.5	°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> = 8A I <sub>F</sub> = 8A; T <sub>J</sub> = 125°C	3.4 1.9	V
I <sub>R</sub>	Instantaneous Reverse Current	V <sub>RRM</sub> = 600V V <sub>RRM</sub> = 600V; T <sub>J</sub> = 125°C	20 200	μA
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> = 1A	18	ns