

Ultrafast Recovery Rectifier

STTH8S06FP

FEATURES

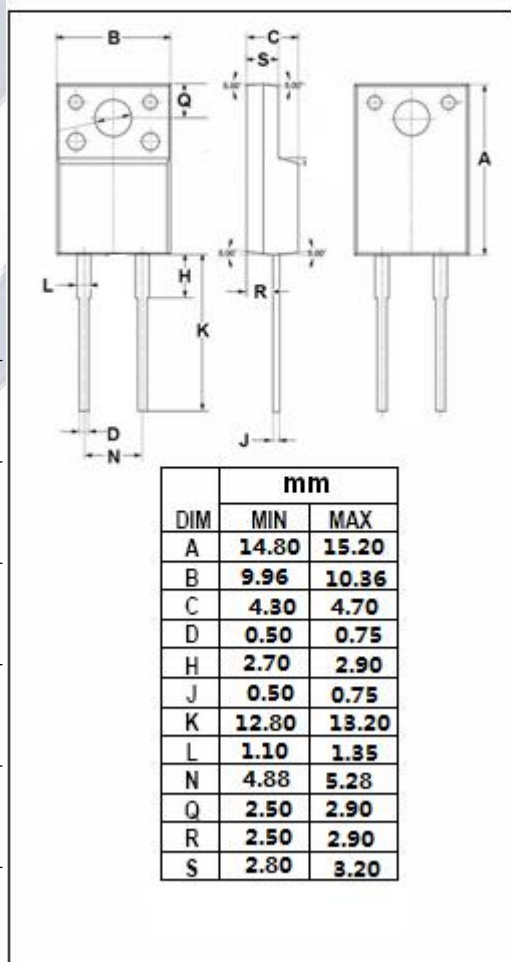
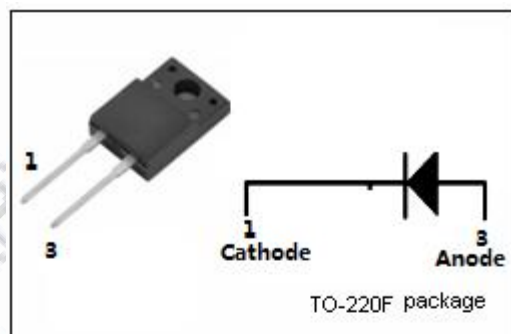
- Low forward voltage drop
- High Current Capability
- High reliability
- High surge Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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 (Rated V_R)	8	A
I_{FSM}	Non repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	60	A
T_J	Max. Junction Temperature	175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5.5	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Instantaneous Forward Voltage	$I_F = 8\text{A}$ $I_F = 8\text{A}; T_J = 125^{\circ}\text{C}$	3.4 1.9	V
I_R	Instantaneous Reverse Current	$V_{RRM} = 600\text{V}$ $V_{RRM} = 600\text{V}; T_J = 125^{\circ}\text{C}$	20 200	μA
t_{rr}	Reverse Recovery Time	$I_F = 1\text{A}$	18	ns