

Ultrafast Recovery Rectifier
STTH8L06FP
FEATURES

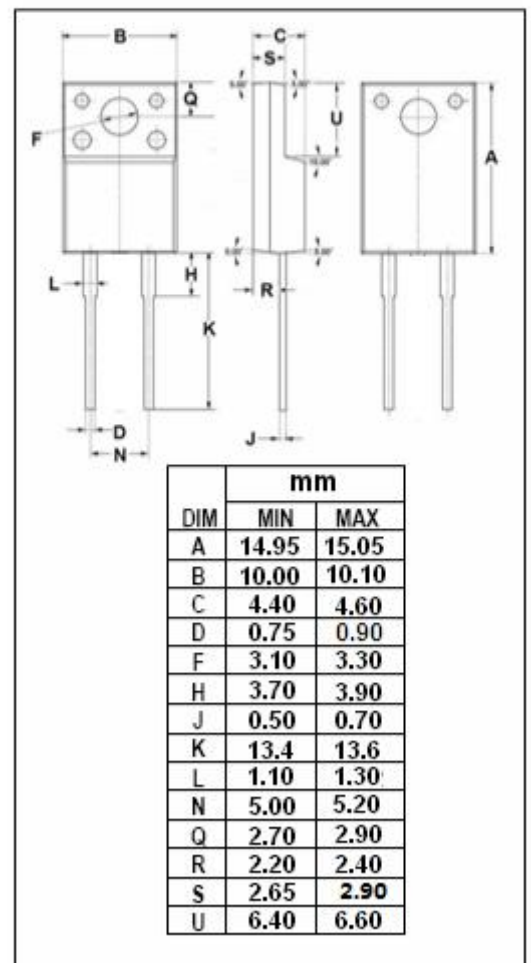
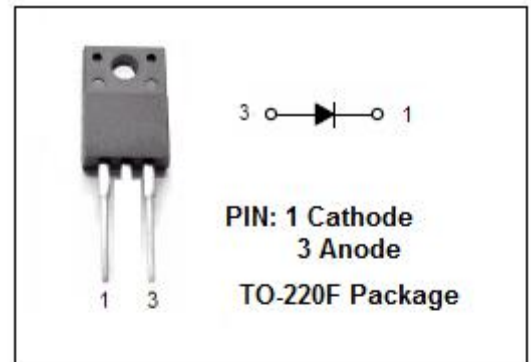
- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 150°C Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supplies
- Power switching circuits
- General purpose

ABSOLUTE MAXIMUM RATINGS(T_a=25°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 _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz)	16	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	120	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	5.0	$^{\circ}\text{C}/\text{W}$

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^*}	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}$	1.55	V
		$I_F=8\text{A}, T_c=125^{\circ}\text{C}$	1.45	
I_R	Maximum Instantaneous Reverse Current	$V_{RRM}=600\text{V}$	10	μA
		$V_{RRM}=600\text{V}, T_c=125^{\circ}\text{C}$	100	
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{REC}=0.25\text{A}$	105	ns

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

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