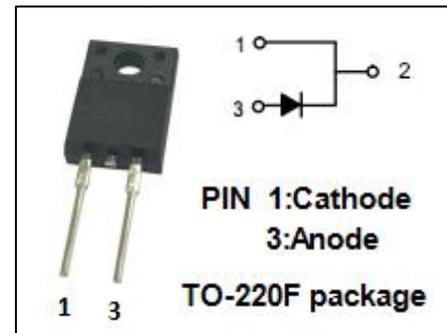


Ultrafast Recovery Rectifier
STTH810FP
FEATURES

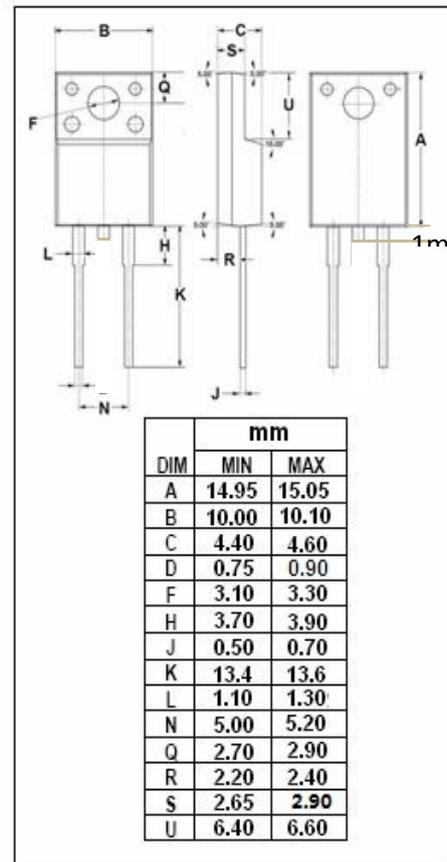
- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in switching power supplies and other power Switching applications.


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	1000	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R)	8	A
I _{FM}	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)	100	A
T _J	Junction Temperature	-40~150	°C
T _{stg}	Storage Temperature Range	-40~150	°C



Ultrafast Recovery Rectifier

STTH810FP

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	5.8	°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	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}$	2.0	V
		$I_F=8\text{A}; T_C=150^{\circ}\text{C}$	1.7	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RRM}; T_C=25^{\circ}\text{C}$	5	μ A
		$V_R=V_{RRM}; T_C=125^{\circ}\text{C}$	20	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}$	50	ns

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