

Ultra fast Rectifier
STTA512F
FEATURES

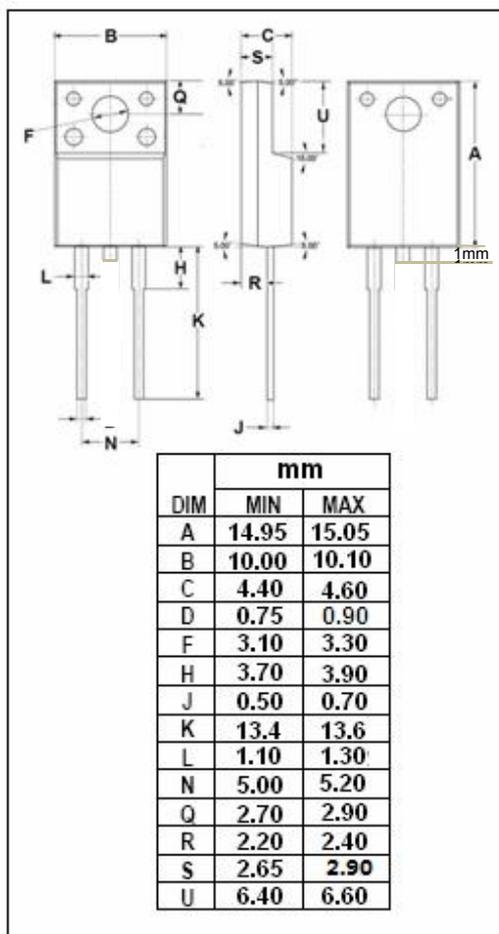
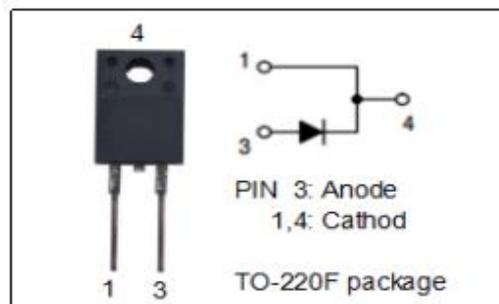
- High reverse voltage capability
- Low switching loss
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General rectification

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM}	Peak Repetitive Reverse Voltage	1200	V
I _{F(AV)}	Average Rectified Forward Current	5	A
I _{FSM}	Nonrepetitive Peak Surge Current	45	A
T _J	Junction Temperature	-65~150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	4.6	°C/W

ELECTRICAL CHARACTERISTICS(T_a=25°C) (Pulse Test: Pulse Width=300 μs, Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F =5A; T _j =25°C I _F =5A; T _j =125°C	2.2 2	V
I _R	Maximum Instantaneous Reverse Current	V _R = V _{RWM} ; T _j =25°C V _R = V _{RWM} ; T _j =125°C	100 2	μA mA
t _{rr}	Maximum Reverse Recovery Time	I _F =1A; di/dt=-50A/μs; V _R =30V	95	ns

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