

## Ultrafast Rectifier

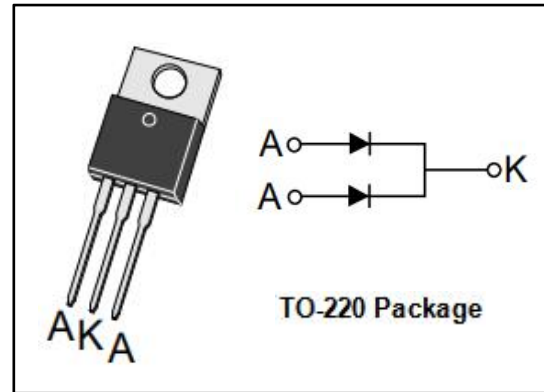
## STTH602CT

## FEATURES

- Super fast switching for high efficiency.
- Low reverse leakage.
- High forward surge current capability.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switching power supply
- PWM pulse width modulator
- High-frequency rectifier diode,

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

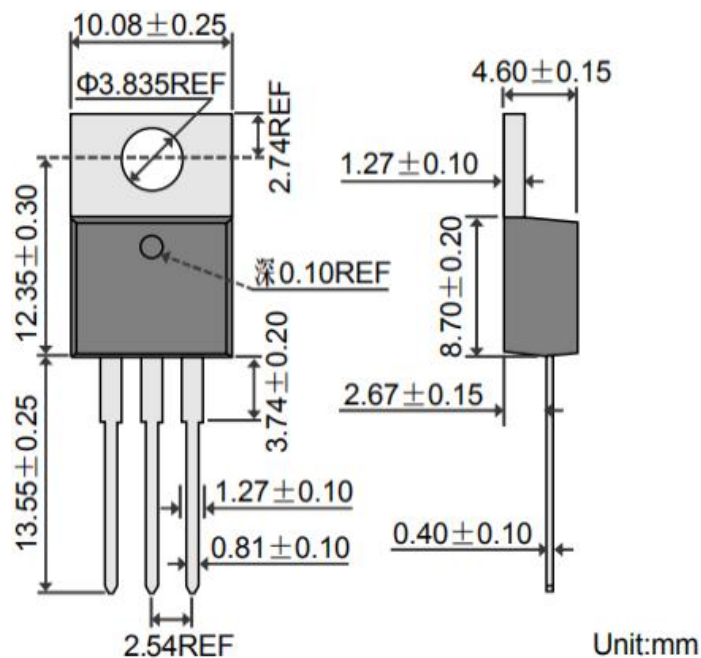
SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current	6	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	60	A
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-40~150	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	$^\circ\text{C/W}$

**Ultrafast Rectifier**
**STTH602CT**
**ELECTRICAL CHARACTERISTICS**( $T_a=25^{\circ}\text{C}$ ) (Pulse Test: Pulse Width=300  $\mu\text{s}$ , Duty Cycle $\leq 2\%$ )

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F = 3\text{A}; T_j = 25^{\circ}\text{C}$ $I_F = 3\text{A}; T_j = 125^{\circ}\text{C}$	1.1 0.95	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_j = 25^{\circ}\text{C}$ $V_R = V_{RWM}; T_j = 125^{\circ}\text{C}$	3.0 30	$\mu\text{A}$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F = 1.0\text{A};$	20	ns


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