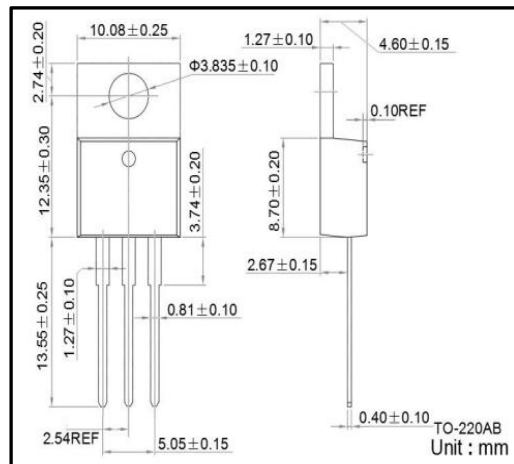
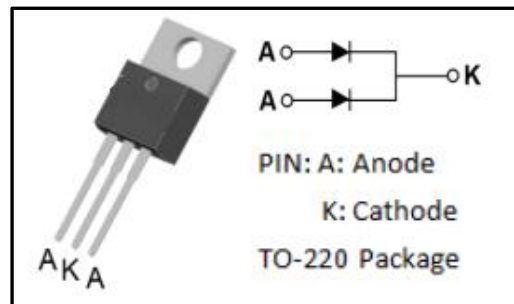


Ultrafast Rectifier
UF1004CT
FEATURES

- Ultrafast with soft recovery
- 150°C Operating temperature
- Popular TO-220 package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Mainly used in switching power supply, PWM pulse width modulator, inverter as a freewheeling and other electronic circuits, high-frequency rectifier diode, diode or damping diode use


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	400	V
I _{F(AV)}	Average Rectified Forward Current	10	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	125	A
P _D	Maximum power dissipation	75	W
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

Ultrafast Rectifier

UF1004CT

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	°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	$I_F=5\text{A}; T_J=25^\circ\text{C}$	1.3	V
I_R^*	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}$ $V_R=V_{RWM}; T_J=125^\circ\text{C}$	1 500	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}; di/dt=50\text{A}/\mu\text{s}$	50	ns

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

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