

**Ultra fast Rectifier**
**SF10LC20U**
**FEATURES**

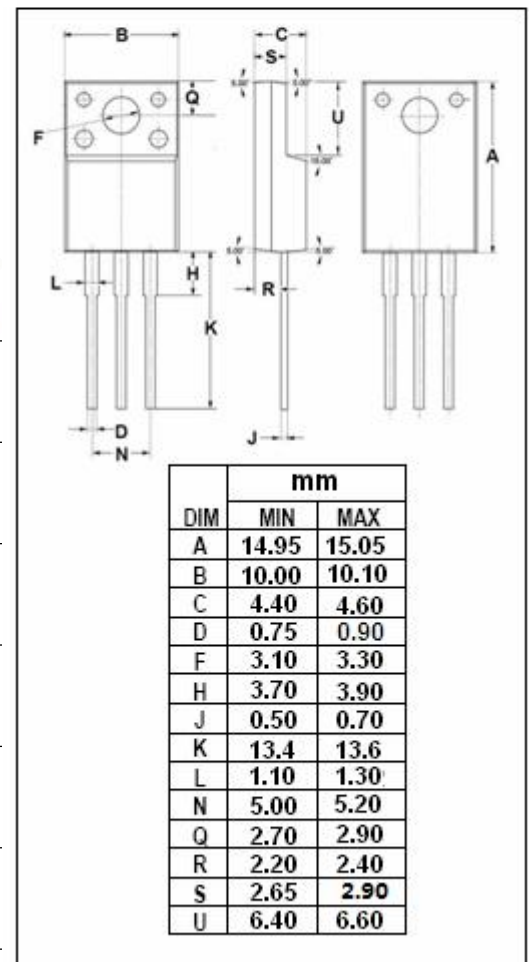
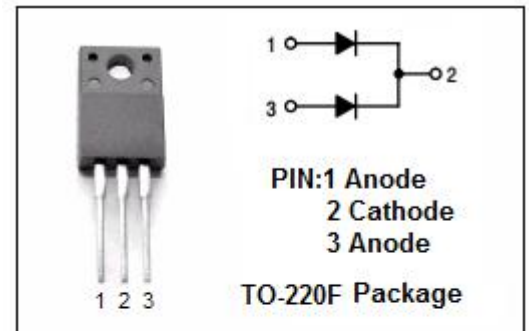
- Ultrafast with soft recovery
- 150°C Operating temperature
- Popular TO-220F package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching power supply
- General purpose

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	200	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	10	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	80	A
T <sub>J</sub>	Junction Temperature	-40~150	°C
T <sub>stg</sub>	Storage Temperature Range	-40~150	°C



## Ultra fast Rectifier

## SF10LC20U

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal Resistance, Junction to Case	2.3	$^{\circ}\text{C}/\text{W}$

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	$I_F=5\text{A}; T_j=25^{\circ}\text{C}$	0.98	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=200\text{V}; T_j=25^{\circ}\text{C}$	10	$\mu\text{A}$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.5\text{A}; I_R=1\text{A}$	35	ns