

## Schottky Barrier Rectifier

## TSF20U100C

## FEATURES

- Plastic material used carriers Underwriter Laboratory
- Metal silicon junction, majority carrier conduction
- Low Power Loss, high Efficiency
- Guard ring for overvoltage protection
- High Surge Capability, High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

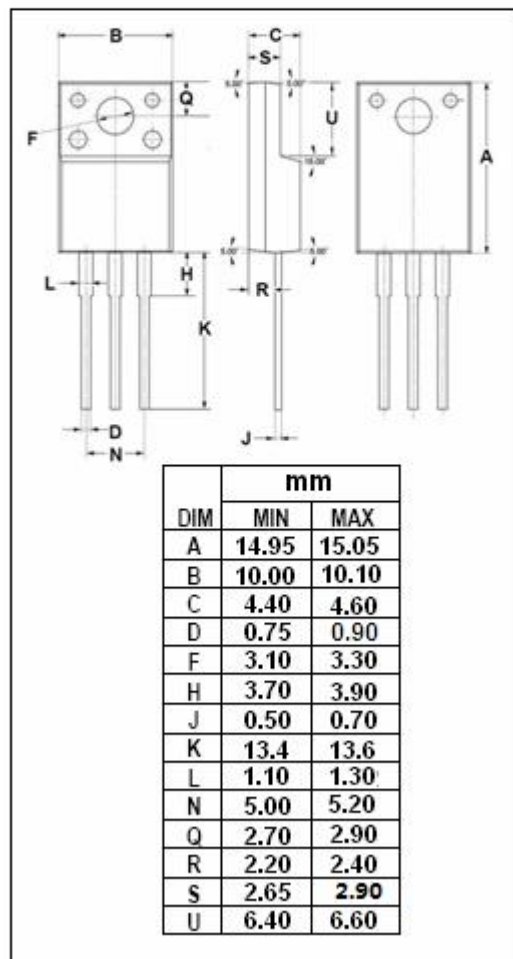
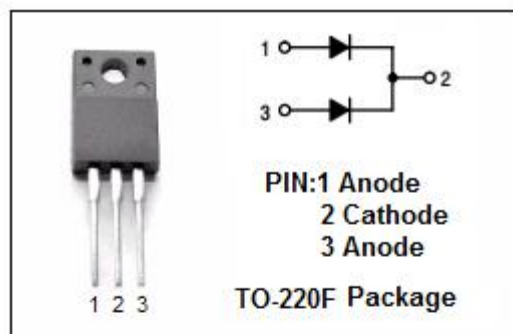


## APPLICATIONS

- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications.

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
I <sub>F(AV)</sub>	Average Rectified Forward Current per devices per diode	20 10	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	150	A
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C
dv/dt	Voltage Rate of Change (Rated V <sub>R</sub> )	10000	V/μs



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.0	$^{\circ}C/W$

## ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 $\mu$ s, Duty Cycle $\leq$ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F = 10A ; T_c = 25^{\circ}C$	0.79	V
		$I_F = 10A ; T_c = 125^{\circ}C$	0.68	
$I_R$	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_c = 25^{\circ}C$	0.5	mA
		$V_R = V_{RWM}; T_c = 125^{\circ}C$	25	

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