

# Schottky Barrier Rectifier

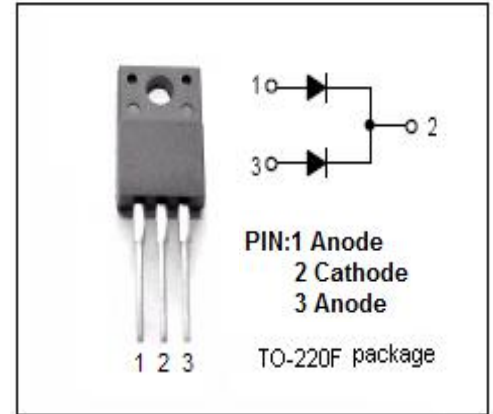
# MBR20100FCT

## FEATURES

- With TO-220F packaging
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

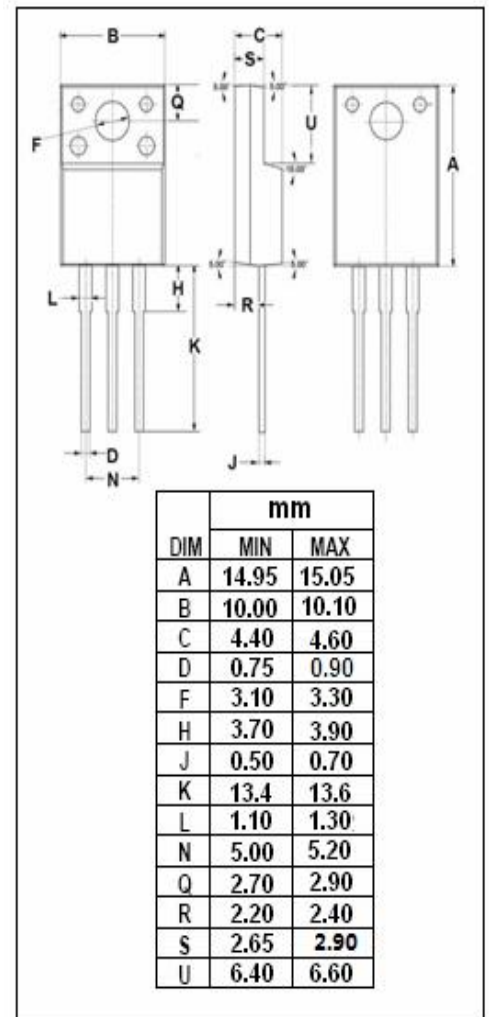
## APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RMS}$ $V_R$	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	100 70 100	V
$I_{F(AV)}$	Average Rectified Forward Current	20	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)	150	A
$T_J$	Junction Temperature	-55~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-55~175	$^{\circ}\text{C}$



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3.0	°C/W

**ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width=300 μ s, Duty Cycle ≤ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 10A ; T <sub>c</sub> = 25°C I <sub>F</sub> = 10A ; T <sub>c</sub> = 100°C	0.85 0.75	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = rated V <sub>RRM</sub> ; T <sub>j</sub> = 25°C V <sub>R</sub> = rated V <sub>RRM</sub> ; T <sub>j</sub> = 100°C	0.2 20	mA

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