

## Schottky Barrier Rectifier

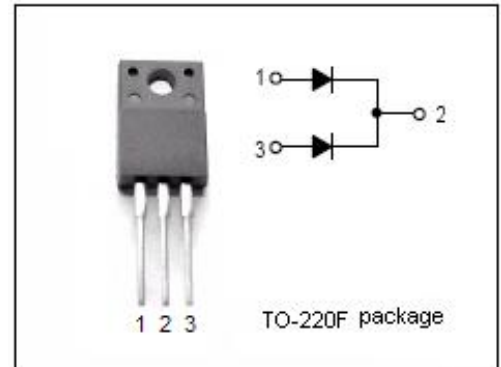
## MBR10100FCT

### FEATURES

- Low Forward Voltage
- 150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

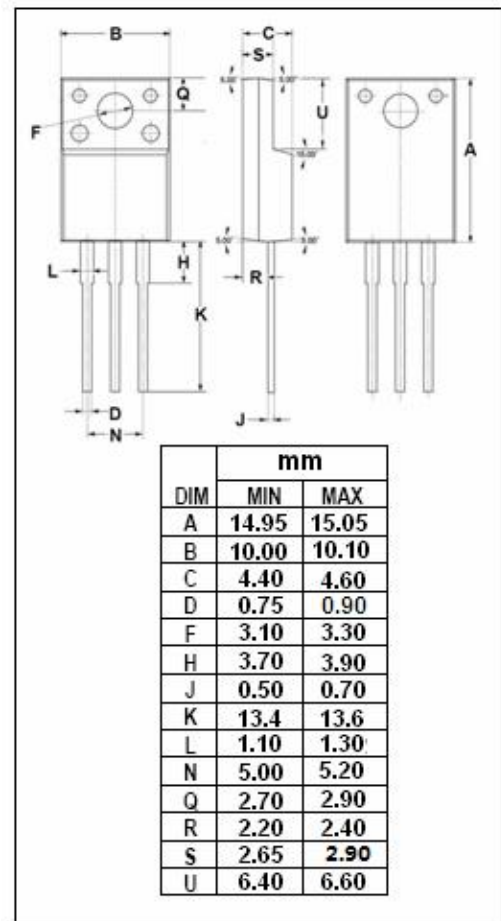
### MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	100 70 100	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated $V_R$ ) $T_C=100^\circ\text{C}$	10	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	120	A
$T_J$	Junction Temperature	-55~150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~175	$^\circ\text{C}$
dv/dt	Voltage Rate of Change (Rated $V_R$ )	10,000	V/ $\mu\text{s}$



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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 ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 5A ; T <sub>C</sub> = 125°C I <sub>F</sub> = 5A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 10A ; T <sub>C</sub> = 125°C I <sub>F</sub> = 10A ; T <sub>C</sub> = 25°C	0.75 0.85 0.85 0.95	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	Rated DC Voltage, T <sub>C</sub> = 100°C Rated DC Voltage, T <sub>C</sub> = 25°C	6.0 0.1	mA

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