

# Schottky Barrier Rectifier

## MBR10100G

### FEATURES

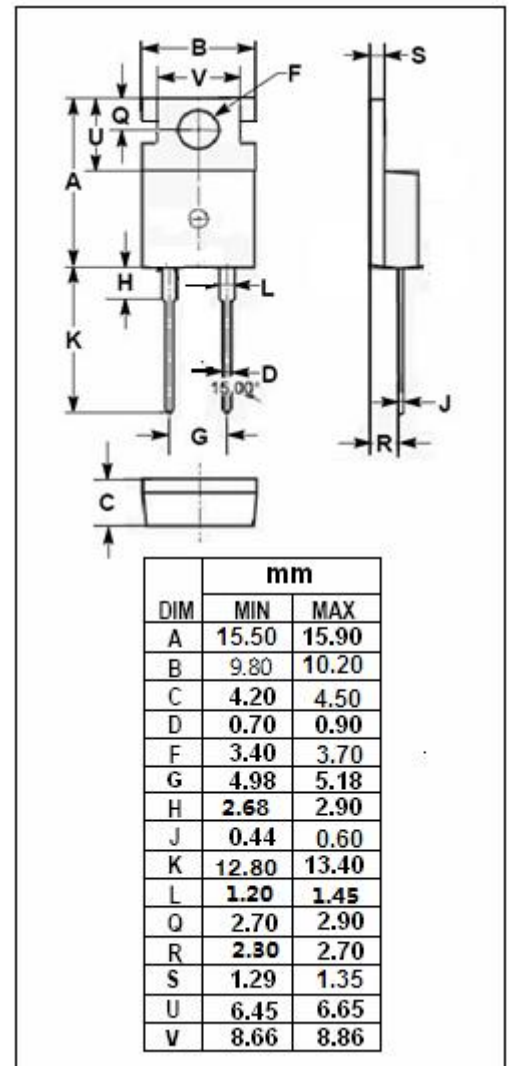
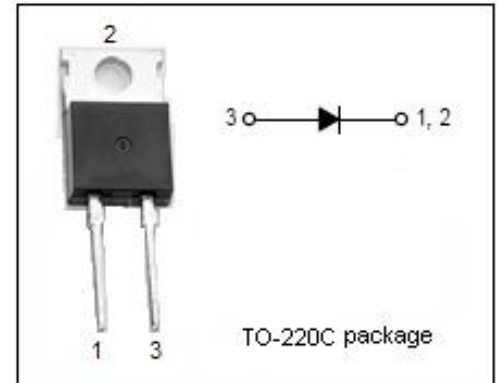
- Low Forward Voltage
- Guaranteed Reverse Avalanche
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
IF(AV)	Average Rectified Forward Current (Rated VR) TC= 133°C	10	A
IFRM	Peak Repetitive Forward Current (Rated VR, Square Wave, 20kHz) TC= 133°C	20	A
IFSM	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
IRRM	Peak Repetitive Reverse Surge Current (20 μs, 1.0kHz)	0.5	A
TJ	Junction Temperature	-65~175	°C
Tstg	Storage Temperature Range	-65~175	°C



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	2.0	°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> = 10A ; T <sub>C</sub> = 125°C I <sub>F</sub> = 10A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 20A ; T <sub>C</sub> = 125°C I <sub>F</sub> = 20A ; T <sub>C</sub> = 25°C	0.7 0.8 0.85 0.95	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	Rated DC Voltage, T <sub>C</sub> = 125°C Rated DC Voltage, T <sub>C</sub> = 25°C	6.0 0.1	mA

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