

Schottky Barrier Rectifier

MBR16100CT

FEATURES

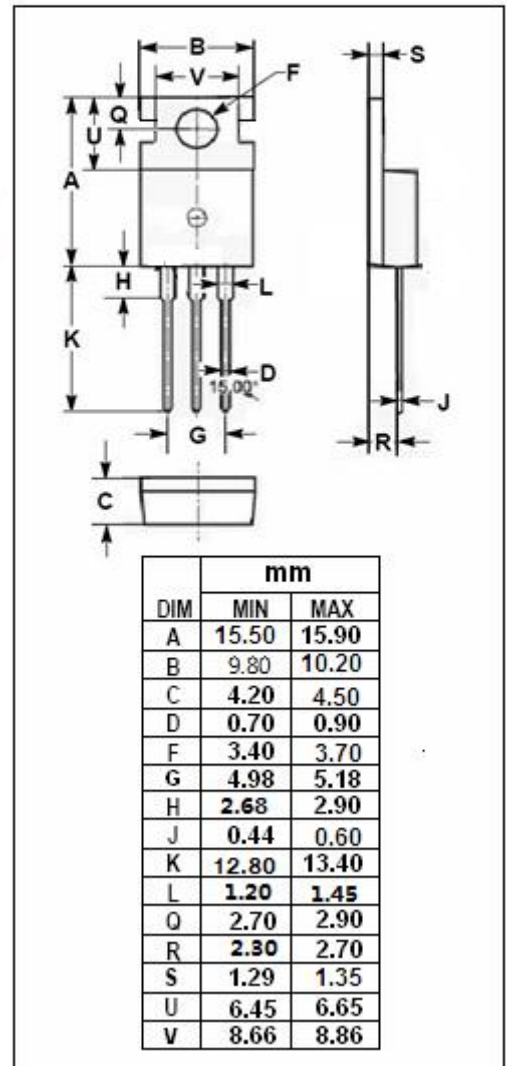
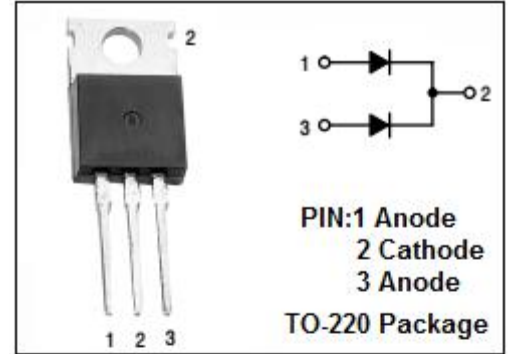
- Low Forward Voltage
- Low power loss high efficiency
- High Surge Capability
- High Operating Junction Temperature
- Low Stored Charge Majority Carrier Conduction
- Pb-Free Packages are Available
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power Supply-output Rectification
- Power Management
- Instrumentation

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 (Rated V <sub>R</sub> )	8	A
I <sub>FRM</sub>	Peak Repetitive Forward Current (Rated V <sub>R</sub> , Square Wave, 20kHz) T <sub>C</sub> = 165°C	16	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
I <sub>RSM</sub>	Peak Repetitive Reverse Surge Current (2.0 μs, 1.0kHz)	0.5	A
T <sub>J</sub>	Junction Temperature	-65~175	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V <sub>R</sub> )	10,000	V/μs



**Schottky Barrier Rectifier****MBR16100CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	2.0	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	60	°C/W

**ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width=300 μ s, Duty Cycle ≤ 2.0%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 8A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 8A ; T <sub>C</sub> = 125°C I <sub>F</sub> = 16A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 16A ; T <sub>C</sub> = 125	0.74 0.60 0.84 0.69	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	Rated DC Voltage, T <sub>C</sub> = 25°C Rated DC Voltage, T <sub>C</sub> = 25°C	0.1 5.0	mA