

Schottky Barrier Rectifier

MBR16100CT

FEATURES

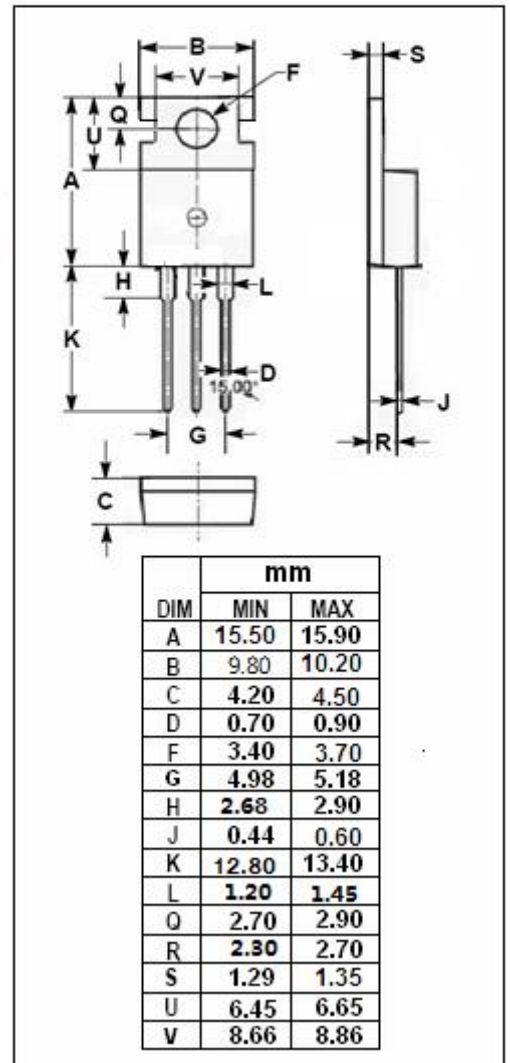
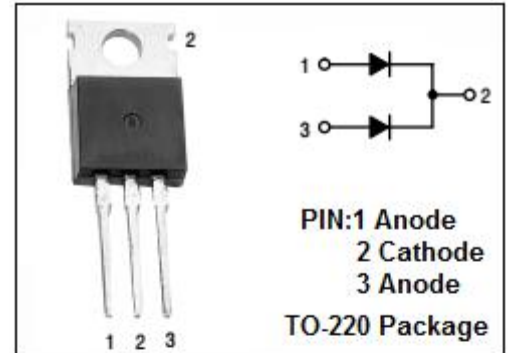
- Low Forward Voltage
- Low power loss high efficiency
- High Surge Capability
- High Operating Junction Temperature
- Low Stored Charge Majority Carrier Conduction
- Pb-Free Packages are Available
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power Supply-output Rectification
- Power Management
- Instrumentation

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R)	8	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) T _C = 165°C	16	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
I _{RSM}	Peak Repetitive Reverse Surge Current (2.0 μs, 1.0kHz)	0.5	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V _R)	10,000	V/μs



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

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.0	°C/W
R _{th j-a}	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 _F	Maximum Instantaneous Forward Voltage	I _F = 8A ; T _C = 25°C I _F = 8A ; T _C = 125°C I _F = 16A ; T _C = 25°C I _F = 16A ; T _C = 125	0.74 0.60 0.84 0.69	V
I _R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T _C = 25°C Rated DC Voltage, T _C = 25°C	0.1 5.0	mA