

Schottky Barrier Rectifier

MBR20100CT

FEATURES

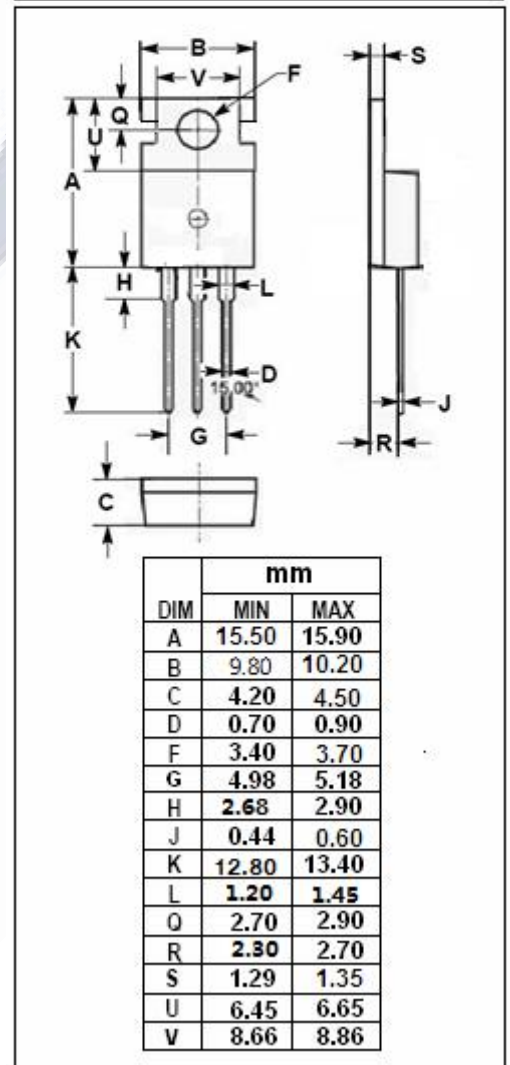
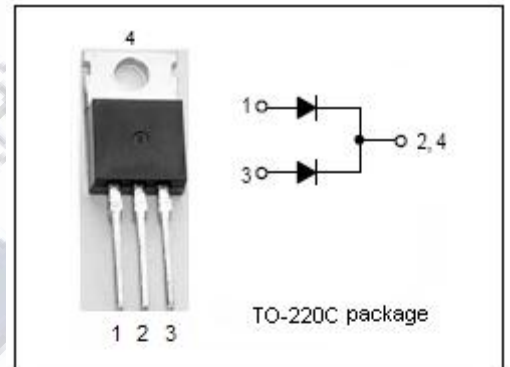
- Low Forward Voltage
- Guaranteed Reverse Avalanche
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Dual Rectifier Conduction, Positive Center Tap
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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(T_a=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) T _C = 133°C	10	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) T _C = 133°C	20	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
I _{RRM}	Peak Repetitive Reverse Current (2.0 μs, 1.0kHz)	0.5	A
T _J	Junction Temperature	-65~150	°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**MBR20100CT****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 μs, Duty Cycle ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 10A ; T _C = 125°C I _F = 10A ; T _C = 25°C I _F = 20A ; T _C = 125°C I _F = 20A ; T _C = 25°C	0.75 0.85 0.85 0.95	V
I _R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T _C = 125°C Rated DC Voltage, T _C = 25°C	6.0 0.1	mA