

Schottky Barrier Rectifier

MBR10150CT

FEATURES

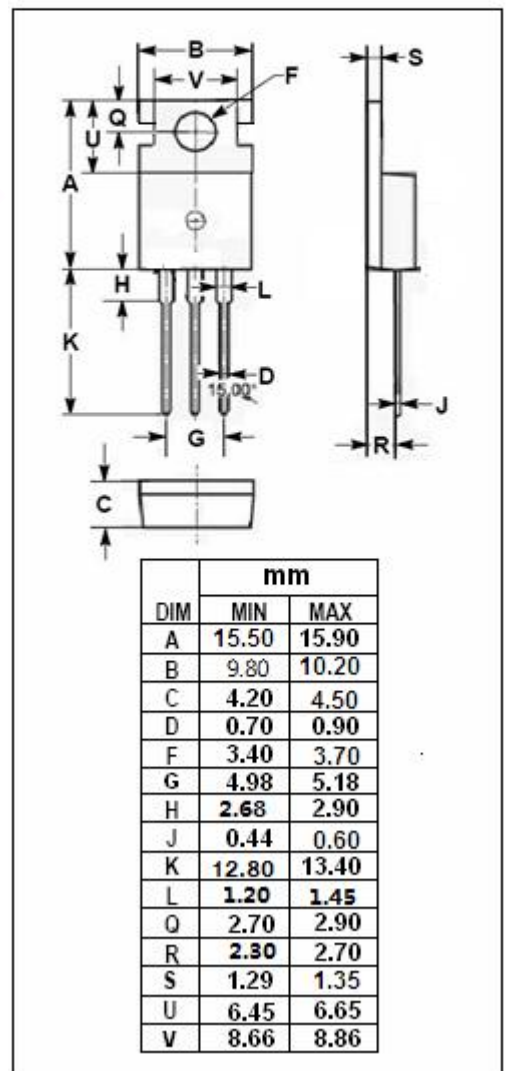
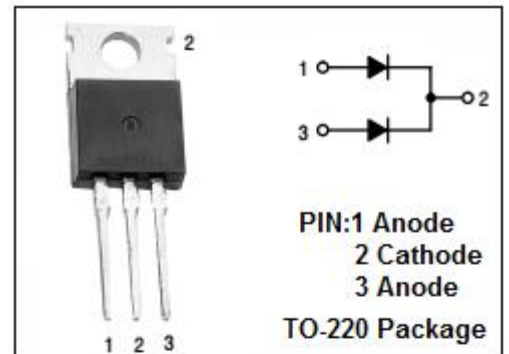
- Metal silicon junction, majority carrier conduction
- Low Power Loss/High Efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- High temperature soldering guaranteed
- RoHS product
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low-voltage,high frequency inverters, free wheeling and polarity protection applications .

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	150	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 125°C	10	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) T _C = 125°C	32	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	120	A
I _{RRM}	Peak Repetitive Reverse Surge Current (20 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**MBR10150CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^{\circ}\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle $\leq$ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 5\text{ A}; T_C = 25^{\circ}\text{C}$ $I_F = 5\text{ A}; T_C = 125^{\circ}\text{C}$	0.88 0.78	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^{\circ}\text{C}$	0.8	mA