

Schottky Barrier Rectifier

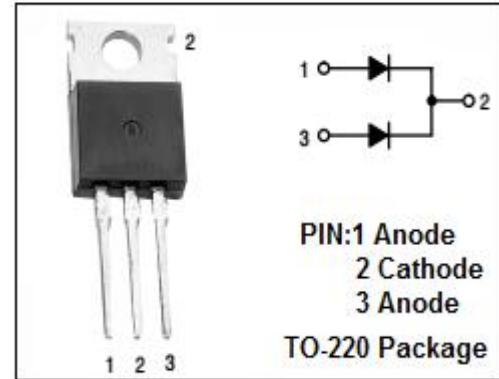
MBR10L100CT

FEATURES

- Metal silicon junction, majority carrier conduction
- Low leakage current, low power loss, high efficiency
- Dual rectifier construction, positive center tap
- Guardring for overvoltage protection
- High surge current capability
- Guard-ring for overvoltage protection
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

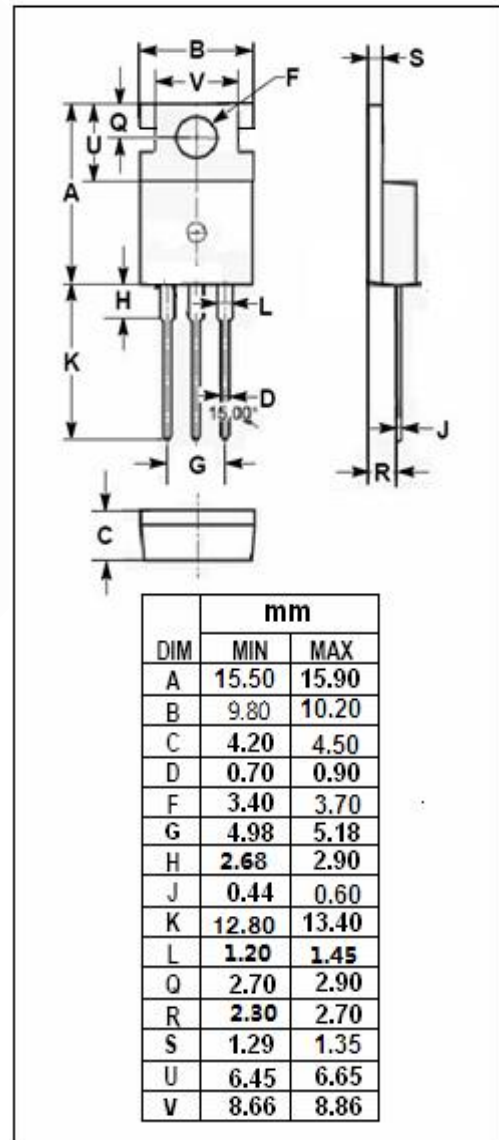
APPLICATIONS

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	100 70 100	V
I _{F(AV)}	Average Rectified Forward Current	10	A
I _{FRM}	Peak Repetitive Forward Current	10	A
I _{FSM}	Nonrepetitive Peak Surge Current (8.3 ms Single Half Sinewave Superimposed on Rated Load)	120	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



Schottky Barrier Rectifier**MBR10L100CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.8	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=5A; T_c=25^{\circ}C$ $I_F=5A; T_c=125^{\circ}C$ $I_F=10A; T_c=25^{\circ}C$ $I_F=10A; T_c=125^{\circ}C$	0.76 0.65 0.85 0.71	V
I_R	Maximum Instantaneous Reverse Current	$V_R=$ rated $V_{RRM}; T_c=25^{\circ}C$ $V_R=$ rated $V_{RRM}; T_c=125^{\circ}C$	0.02 15	mA