

Schottky Barrier Rectifier

MBR60100CT

FEATURES

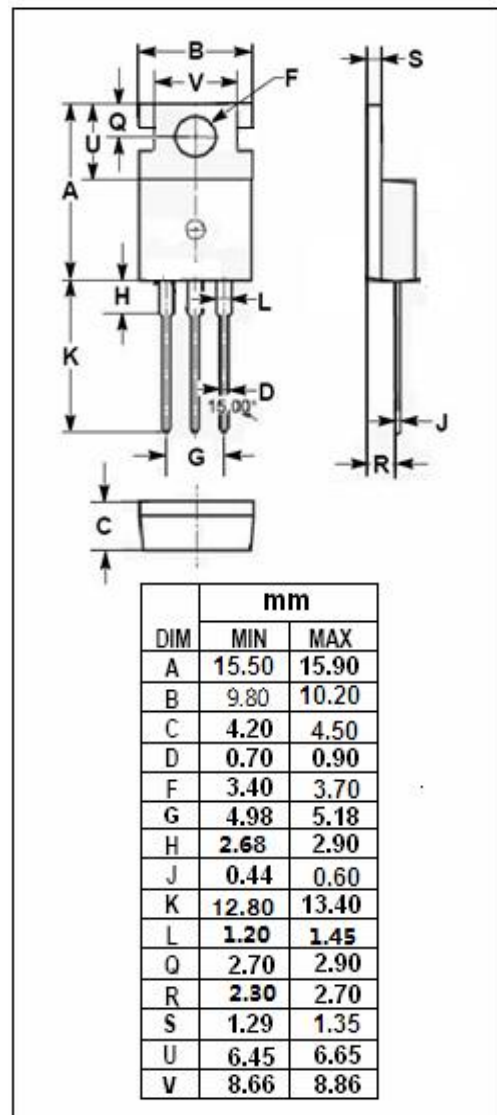
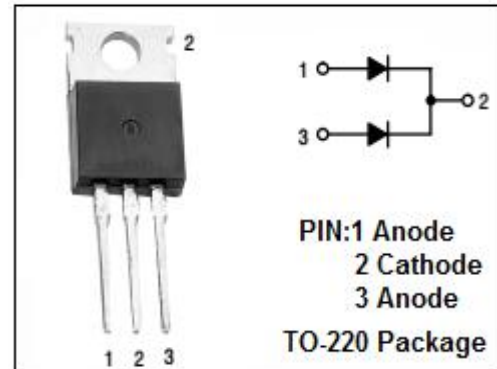
- Metal silicon junction, majority carrier conduction
- Low leakage current, low power loss, high efficiency
- Dual rectifier construction, positive center tap
- Guardring for overvoltage protection
- High frequency operation
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations 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}	Peak Repetitive Reverse Voltage	100	V	
V _{RMS}	RMS Voltage	100		
V _R	DC Blocking Voltage	100		
I _{F(AV)}	Average Rectified Forward Current	Top device	60	A
		Per leg	30	
I _{FSM}	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)	350	A	
I _{RRM}	Peak Repetitive Reverse Current per leg at t _p = 2μs, 1KHz	1.0	mA	
T _J	Junction Temperature	-65~175	°C	
T _{stg}	Storage Temperature Range	-65~175	°C	



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.5	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=30A; T_c=25^{\circ}C$ $I_F=30A; T_c=125^{\circ}C$ $I_F=60A; T_c=25^{\circ}C$ $I_F=60A; T_c=125^{\circ}C$	0.82 0.69 1.00 0.83	V
I_R	Maximum Instantaneous Reverse Current	$V_R=$ rated $V_{RRM}; T_j=25^{\circ}C$ $V_R=$ rated $V_{RRM}; T_j=125^{\circ}C$	0.1 20	mA

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