

Schottky Barrier Rectifier

MBR30L45CT

FEATURES

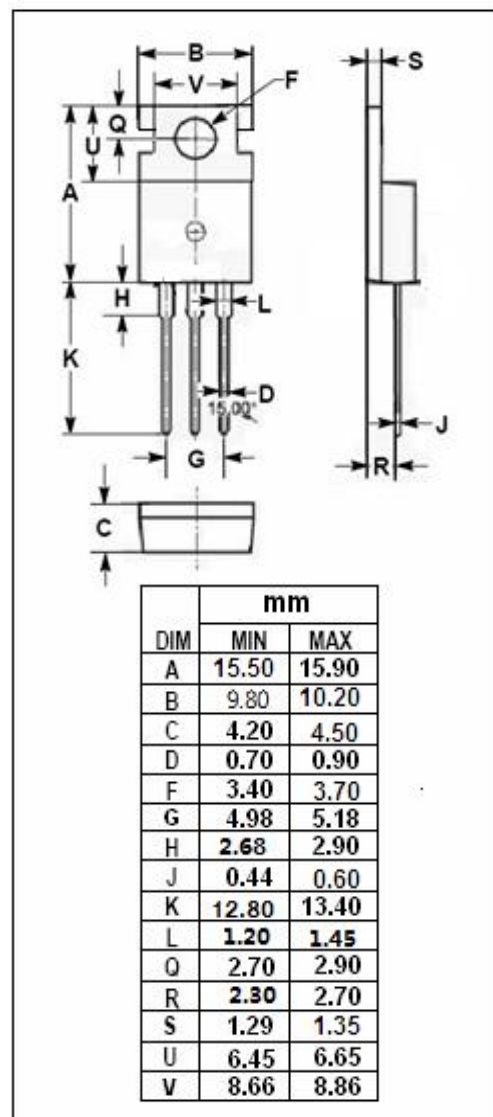
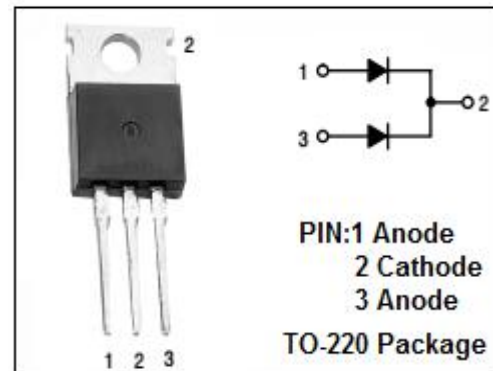
- Metal silicon junction, majority carrier conduction
- Low leakage current, low power loss, high efficiency
- Dual rectifier construction, positive center tap
- Guardring for overvoltage protection
- High surge current capability
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations 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	45	V
V _{RMS}	RMS Voltage	31	
V _R	DC Blocking Voltage	45	
I _{F(AV)}	Average Rectified Forward Current @T _c =120°C	30	A
I _{FSM}	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)	220	A
I _{FRM}	Peak Repetitive Reverse Surge Current	30	A
T _J	Junction Temperature	-65~150	°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	1.0	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 15A ;T _c = 25°C I _F = 15A ;T _c = 125°C I _F = 30A ;T _c = 25°C I _F = 30A ;T _c = 125°C	0.55 0.50 0.74 0.67	V
I _R	Maximum Instantaneous Reverse Current	V _R = rated V _{RRM} ; T _c = 25°C V _R = rated V _{RRM} ; T _c = 125°C	0.4 200	mA

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