

Schottky Barrier Rectifier

MBR20L45CT

FEATURES

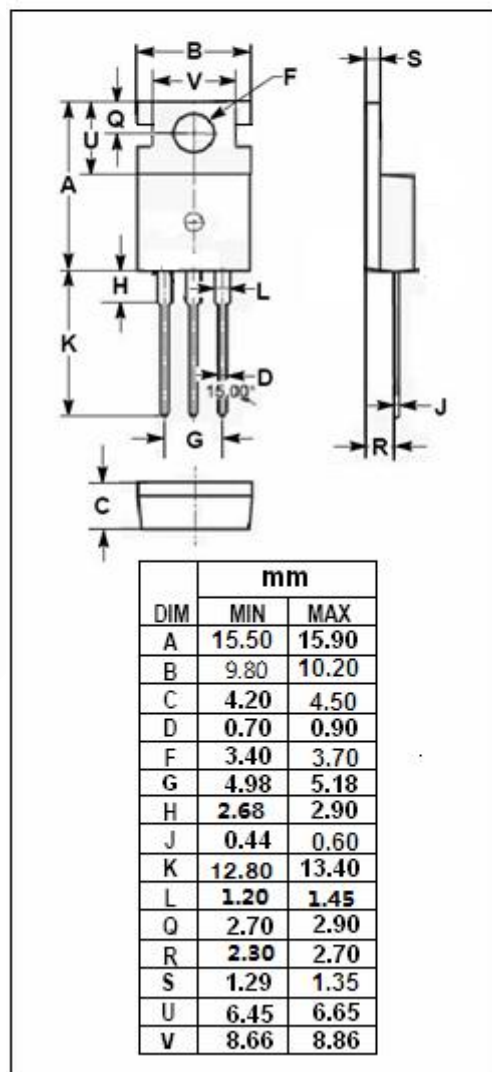
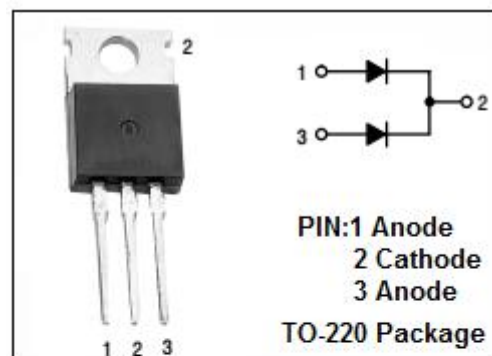
- Guard ring for overvoltage protection
- Lower power losses, high efficiency
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High frequency operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For use in high frequency rectifier of switching mode power supplies
freewheeling diodes, dc-to-dc converters or polarity protection
application.

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	45	V
V _{RMS}	Maximum RMS Reverse Voltage	31	V
I _{F(AV)}	Average Rectified Forward Current	20	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	200	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



Schottky Barrier Rectifier**MBR20L45CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 10A ; T_c = 25^{\circ}C$	0.54	V
		$I_F = 10A ; T_c = 125^{\circ}C$	0.52	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM} ; T_j = 25^{\circ}C$	0.2	mA
		$V_R = V_{RWM} ; T_j = 125^{\circ}C$	7.5	