

Schottky Barrier Rectifier

MBR60L45CT

FEATURES

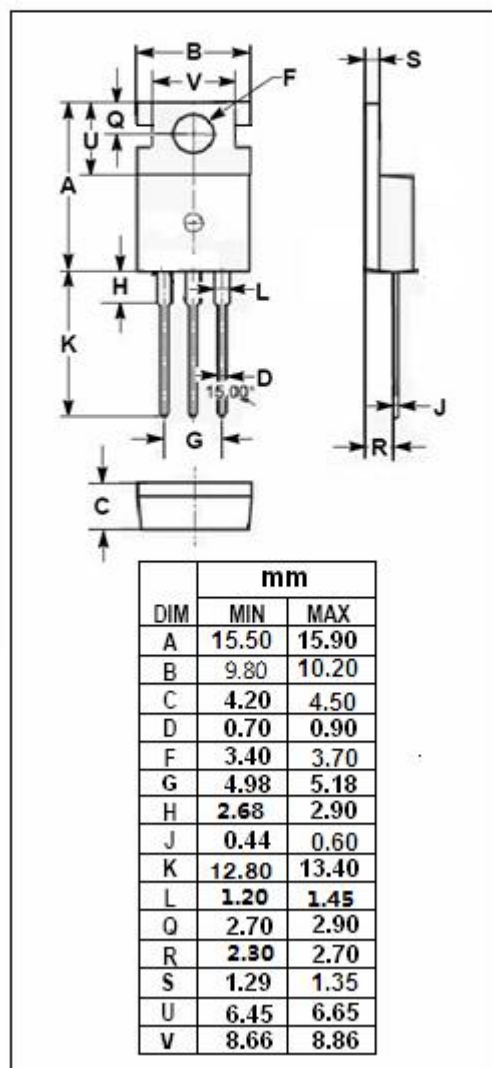
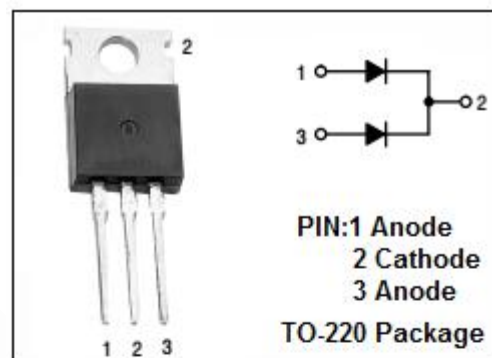
- Low Forward Voltage
- Guard -Ring for Stress Protection
- High Surge Capability
- 175°C Operating Junction Temperature
- Pb-Free Package is Available
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

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
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 125°C	60	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	200	A
T _J	Junction Temperature	-65~175	°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**MBR60L45CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.59	$^{\circ}\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle $\leq$ 2.0%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 30\text{A}; T_c = 25^{\circ}\text{C}$	0.55	V
		$I_F = 30\text{A}; T_c = 125^{\circ}\text{C}$	0.53	
		$I_F = 60\text{A}; T_c = 25^{\circ}\text{C}$	0.73	
		$I_F = 60\text{A}; T_c = 125^{\circ}\text{C}$	0.76	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_c = 25^{\circ}\text{C}$	1.2	mA
		$V_R = V_{RWM}; T_c = 125^{\circ}\text{C}$	275	