

Schottky Barrier Rectifier

MBR30H100CT

FEATURES

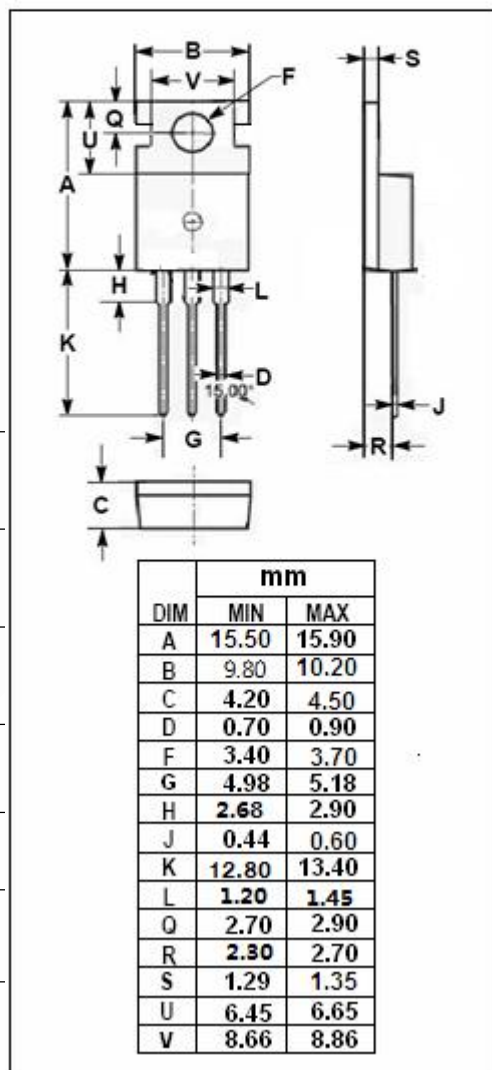
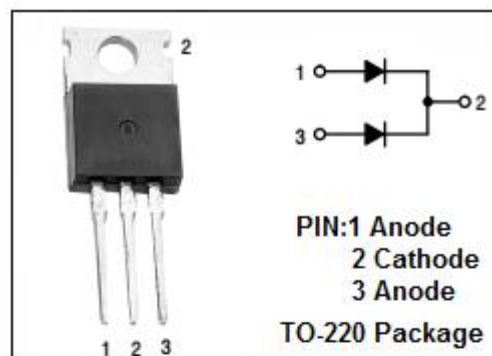
- Low forward voltage
- Low power loss,high efficiency
- High surge capability
- 175°C operating junction temperature
- Pb-Free Package is Available
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current (Per Leg) (Total)	15 30	A
I_{FSM}	Peak Forward Surge Current, 8.3 ms single halfsine-wave superimposed on rated load (JEDEC method)	250	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**MBR30H100CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	60	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 1\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15\text{A}, T_C = 25^{\circ}\text{C}$ $I_F = 15\text{A}, T_C = 125^{\circ}\text{C}$ $I_F = 30\text{A}, T_C = 25^{\circ}\text{C}$ $I_F = 30\text{A}, T_C = 125^{\circ}\text{C}$	0.80 0.67 0.93 0.80	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^{\circ}\text{C}$ Rated DC Voltage, $T_C = 125^{\circ}\text{C}$	0.0045 6.0	mA