

Schottky Barrier Rectifier

MBR30100PT

FEATURES

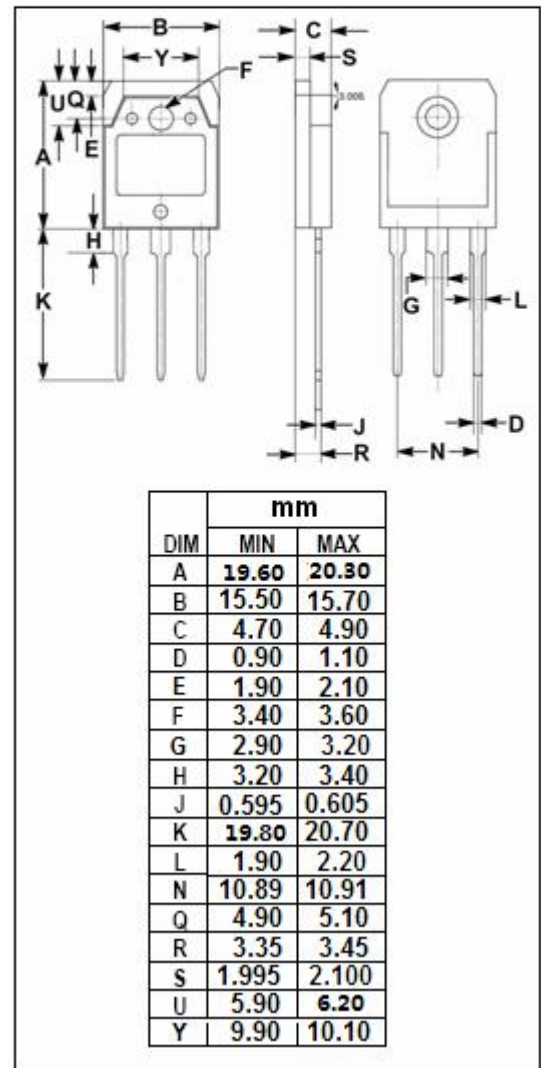
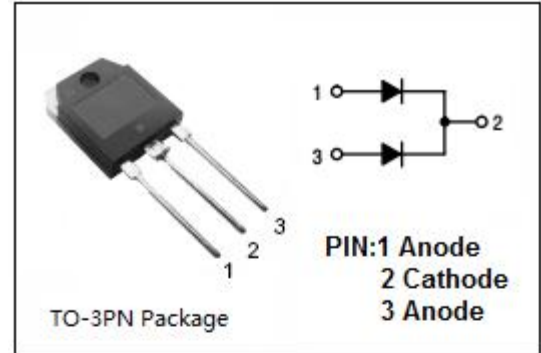
- Plastic material used carriers Unerwriter Laboratory
- Metal silicon rectifier, majonty carrier conduction
- Low Power Loss,High Efficiency
- Guard ring for transient protection
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For use in low voltage ,high frequency inverters,free wheeling and polarity protection applications.

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	100	V
V _{R(RMS)}	RMS Reverse Voltag	70	V
I _{F(AV)}	Average Rectified Forward Current	30	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	250	A
I _{RRM}	Peak Repetitive Reverse Surge Current (20 μ s, 1.0kHz)	1.0	A
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V _R)	1000	V/ μ s



Schottky Barrier Rectifier**MBR30100PT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.4	°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	$I_F = 15A ; T_c = 25^\circ C$	0.85	V
		$I_F = 15A ; T_c = 125^\circ C$	0.75	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_c = 25^\circ C$	0.5	mA
		$V_R = V_{RWM}; T_c = 125^\circ C$	10	

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