

Schottky Barrier Rectifier

MBR6045WT

FEATURES

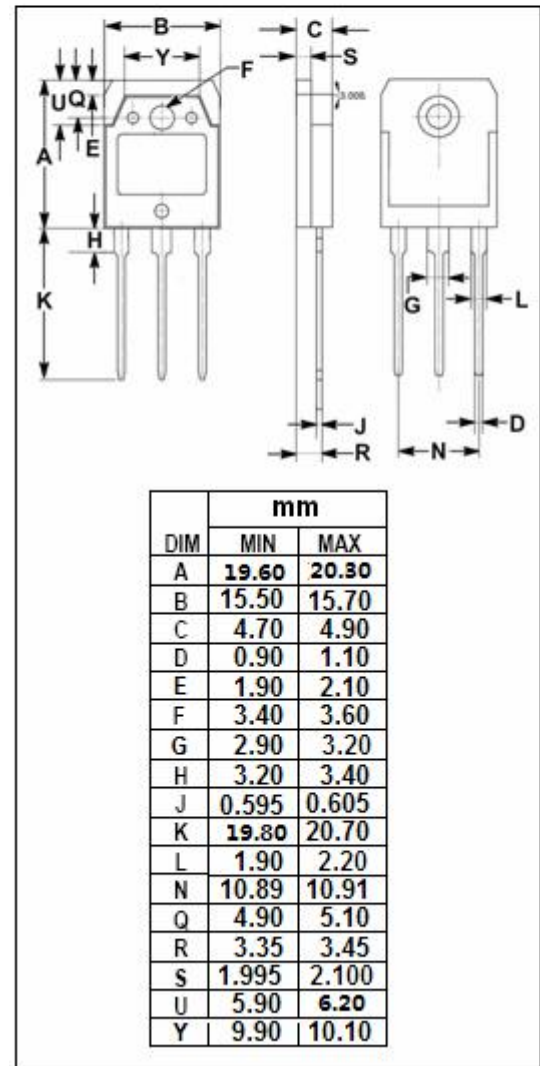
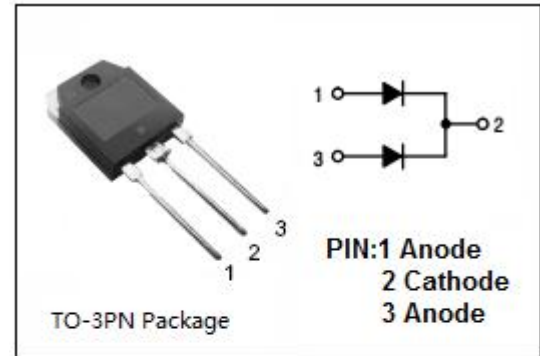
- Low Forward Voltage
- Guard -Ring for Stress Protection
- High Surge Capability
- 175°C Operating Junction Temperature
- Pb-Free Package is Available
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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 _R RM V _R WM 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 Per Diode Per Device	30 60	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	500	A
I _{RRM}	Peak Repetitive Reverse Surge Current (20 μs, 1.0kHz)	2.0	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



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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 ≤ 2.0%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 30A ; T _c = 25°C	0.62	V
		I _F = 30A ; T _c = 125°C	0.55	
		I _F = 60A ; T _c = 25°C	0.75	
I _R	Maximum Instantaneous Reverse Current	V _R = V _{RWM} ; T _c = 25°C	1.0	mA
		V _R = V _{RWM} ; T _c = 125°C	10	

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