

# **Schottky Barrier Rectifier**

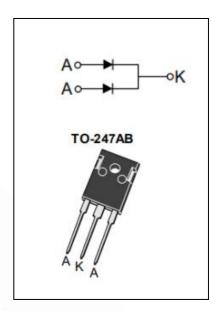
## **MBR4050PT**

#### **FEATURES**

- Plastic material used carriers Unerwriter Laboratory
- Metal silicon rectifier, majorty 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



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



## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	50	V
$I_{F(AV)}$	Average Rectified Forward Current	40	Α
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	400	А
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current (20μs, 1.0kHz)		А
TJ	Junction Temperature	-65~150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	$^{\circ}$

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.2	°C/W



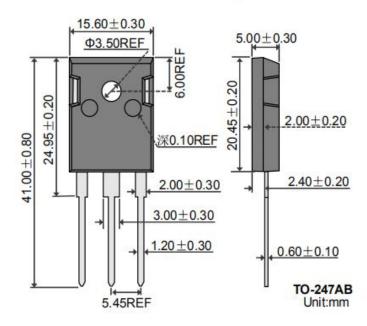
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ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 µ s,Duty Cycle≤1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
VF	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 20A ; Tc= 25 ℃	0.72	V
		I <sub>F</sub> = 20A ; Tc= 125℃	0.62	
IR	Maximum Instantaneous Reverse Current	V <sub>R</sub> = V <sub>RWM</sub> ;Tc= 25°C	1	mA
		V <sub>R</sub> = V <sub>RWM</sub> ;Tc= 125°C	100	

#### **Outline package**



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