

# Schottky Barrier Rectifier

# MBRB1045

## FEATURES

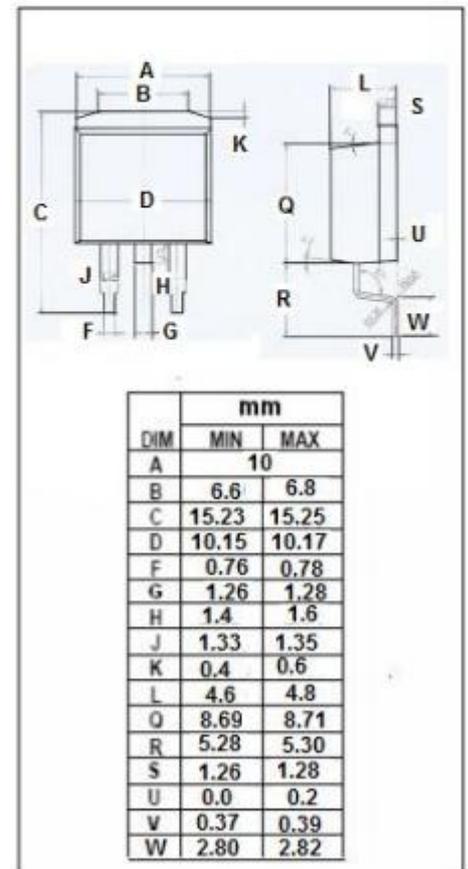
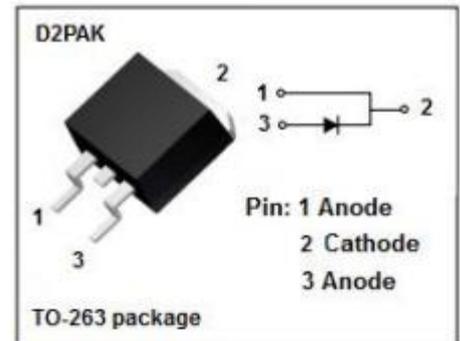
- Schottky barrier chip
- Low Power Loss/High Efficiency
- High Operating Junction Temperature
- Low Forward Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- For use in high frequency rectifier of switching mode Power supplies, freewheeling diodes, DC-to-DC converters Or polarity protection application.

## 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	45	V
$I_{F(AV)}$	Average Rectified Forward Current	10	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave ,,single phase,60Hz)	150	A
$T_J$	Junction Temperature	-65~150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~175	$^\circ\text{C}$



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}C/W$

**ELECTRICAL CHARACTERISTICS**

SYMBOL	PARAMETER			CONDITIONS	TYP	MAX	UNIT
$V_F$	Maximum Voltage	Instantaneous	Forward	$I_F = 10A ; T_j = 125^{\circ}C$		0.57	V
				$I_F = 20A ; T_j = 25^{\circ}C$		0.84	
				$I_F = 20A ; T_j = 125^{\circ}C$		0.72	
$I_R$	Maximum Current	Instantaneous	Reverse	$V_R = V_{RWM}, T_j = 25^{\circ}C$		100	$\mu A$
				$V_R = V_{RWM}, T_j = 125^{\circ}C$		15	mA

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