

**Schottky Barrier Rectifier**
**MBRD1045**
**FEATURES**

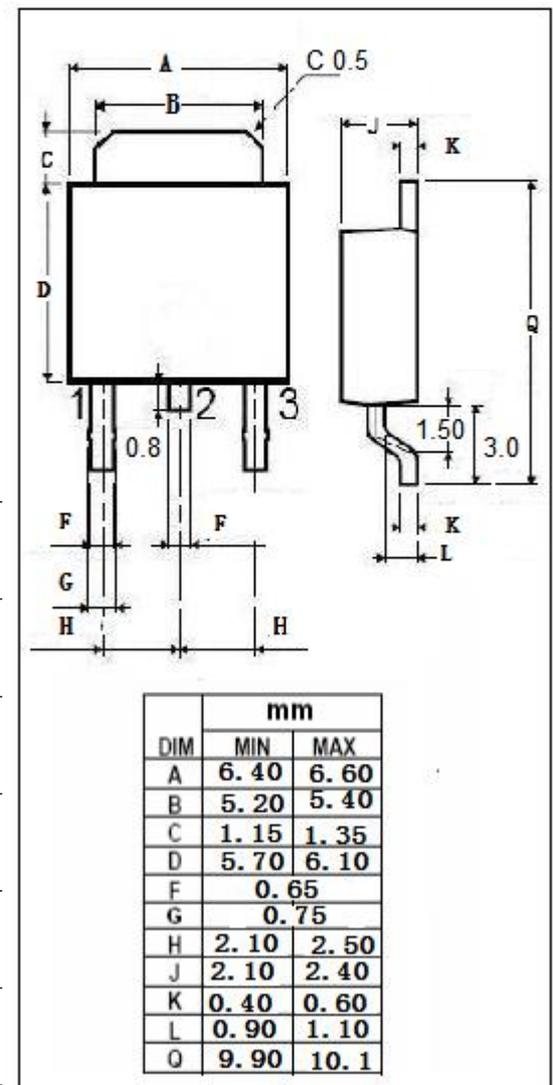
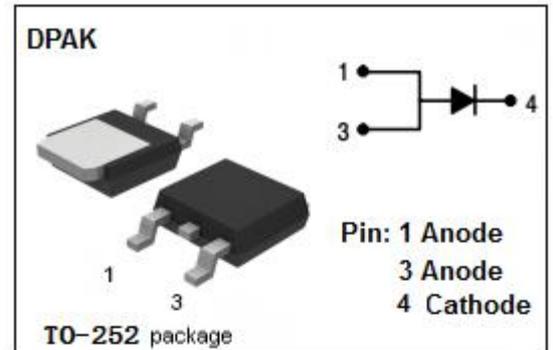
- Schottky barrier chip
- Low Power Loss, High Efficiency
- Guard ring for transient protection
- High Operating Junction Temperature
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**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(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RMS</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	45	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	10	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	150	A
T <sub>J</sub>	Junction Temperature	-40~150	°C
T <sub>stg</sub>	Storage Temperature Range	-40~150	°C



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3	°C/W

**ELECTRICAL CHARACTERISTICS**

SYMBOL	PARAMETER			CONDITIONS	TYP	MAX	UNIT
$V_F$	Maximum Voltage	Instantaneous	Forward	$I_F=5A ; T_j=125^{\circ}C$		0.49	V
				$I_F=5A ; T_j= 25^{\circ}C$		0.5	
$I_R$	Maximum Current	Instantaneous	Reverse	$V_R= V_{RWM}; T_j= 25^{\circ}C$		100	uA
				$V_R= V_{RWM}; T_j= 125^{\circ}C$		15	mA

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