

## 8.0A Surface Mount Schottky Barrier Rectifier

### Features

- Low profile package
- Built-in strain relief
- Low power loss and high efficiency
- High surge capacity
- Plastic package has underwriters laboratory flammability classification 94V-0
- Use in low voltage high frequency inverters, free wheeling and polarity protection applications
- RoHS compliant



**TO-252  
(DPAK)**

### Mechanical Data

<b>Case:</b>	TO-252 molded plastic
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Packaging</b>	16mm tape (EIA-481)
<b>Weight:</b>	0.0104 Ounces, 0.297 grams



### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	MBRD 820	MBRD 830	MBRD 840	MBRD 850	MBRD 860	Unit	Conditions	
<b>VRRM</b>	Maximum Repetitive Peak Reverse Voltage	20	30	40	50	60	V		
<b>VRMS</b>	Maximum RMS Voltage	14	21	28	35	42			
<b>VDC</b>	Maximum DC Blocking Voltage	20	30	40	50	60			
<b>IF(AV)</b>	Maximum Average Forward Rectified Current	8.0						A	Tc=75°C
<b>IFSM</b>	Peak Forward Surge Current	85						A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>TJ</b>	Operating Junction Temperature Range	-55 to 125			-55 to 150		°C		
<b>TSTG</b>	Storage Temperature Range	-55 to 150							

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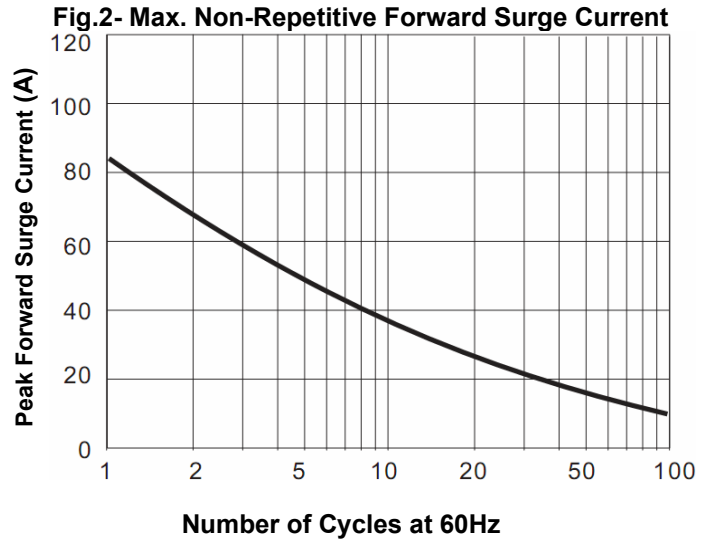
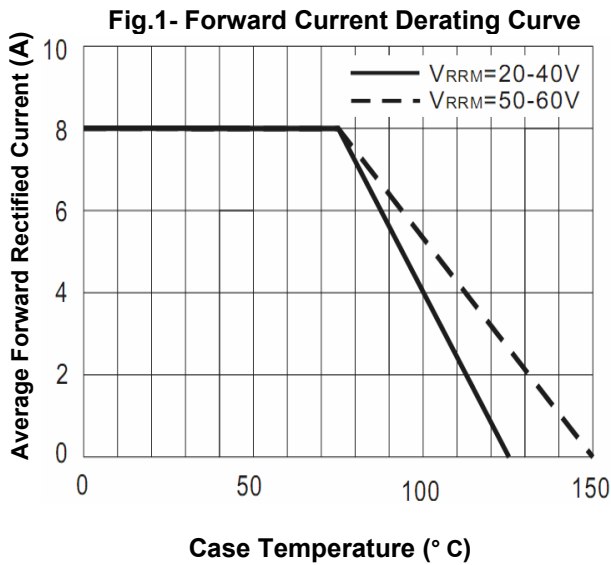
## MBRD820~MBRD860

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	MBRD 820	MBRD 830	MBRD 840	MBRD 850	MBRD 860	Unit	Conditions
$V_F$	Maximum Forward Voltage	0.55			0.75		V	$I_F=8.0A$
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage	0.2			0.1		mA	$T_j=25^{\circ}C$
		20			20			$T_j=100^{\circ}C$
$R_{\theta JC}$	Typical Thermal Resistance Junction to Case	5.0					$^{\circ}C/W$	
$R_{\theta JA}$	Typical Thermal Resistance Junction to Ambient	80						

Note: Single phase half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

### Typical Characteristics Curves



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## MBRD820~MBRD860

Fig.3- Typical Reverse Characteristics

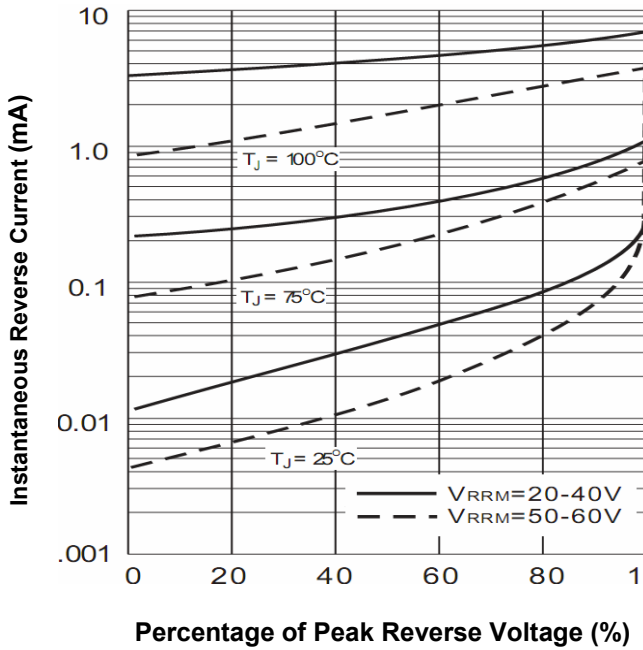
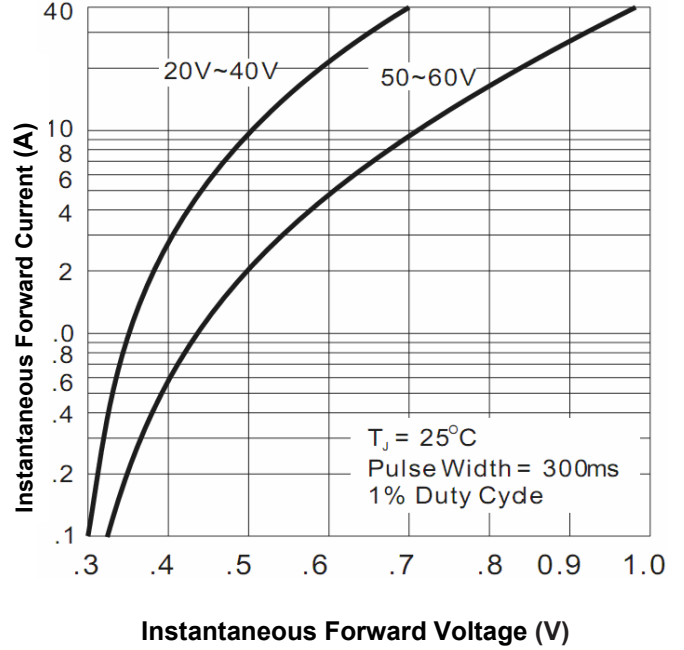
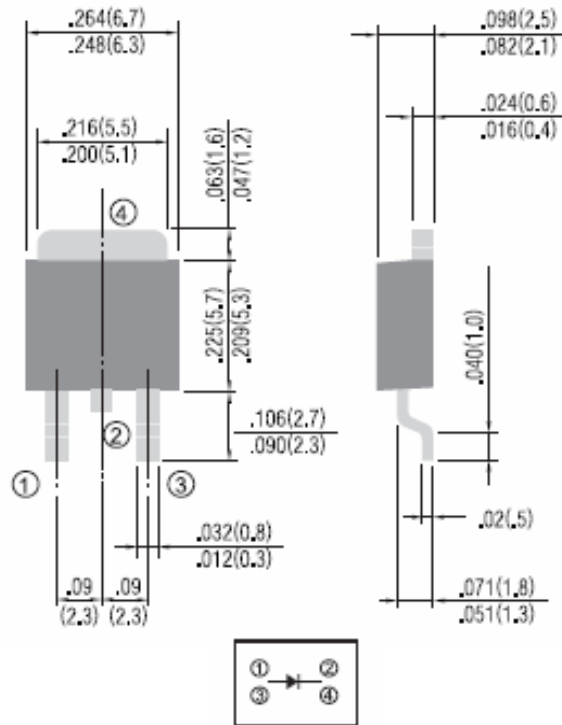


Fig.4- Typical Forward Characteristics



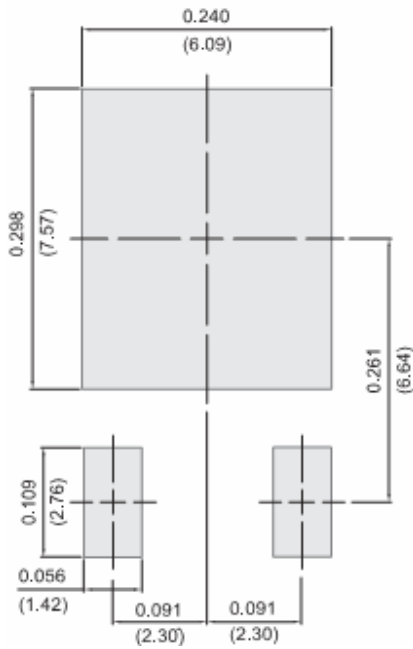
### Dimensions in inch (mm)



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## Mounting Pad Layout in inch (mm)



## Packing

Tape and Reel --- 3K per 13" plastic reel

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**MBRD820~MBRD860**

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