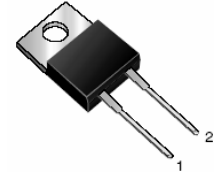


### 10A Schottky Barrier Rectifier

#### Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Guarding for over voltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250° C/10 seconds, 0.25" (6.35mm) from case



TO-220AC

#### Mechanical Data

<b>Case:</b>	JEDEC TO-220AC, molded plastic body
<b>Terminals:</b>	Plated leads, solderable per MIL-STD-750, Method 2026
<b>Polarity</b>	As marked
<b>Mounting Position:</b>	Any
<b>Mounting Torque:</b>	10 in-lbs maximum
<b>Weight:</b>	0.08 ounce, 2.24 grams

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

Symbol	Description	MBR1035	MBR1045	MBR1050	MBR1060	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	35	45	50	60	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	35	45	50	60	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	10				A	See Fig.1
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current per leg	150				A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
<b>T<sub>J</sub></b>	Operating Junction Temperature Range	-65 to +150				° C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-65 to +150				° C	

# 10A Schottky Barrier Rectifier

## MBR1035 - MBR1060

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

Symbol	Description	MBR1035	MBR1045	MBR1050	MBR1060	Unit	Conditions
$V_F$	Maximum Instantaneous Forward Voltage per leg (Note 1)	-		0.80		V	$I_F=10A$ $T_c=25^{\circ}C$
		0.57		0.70			$I_F=10A$ $T_c=125^{\circ}C$
$I_R$	Maximum Instantaneous Reverse Current at rated DC Blocking Voltage		0.10			mA	$T_c=25^{\circ}C$
			15				$T_c=125^{\circ}C$
$R_{\theta-JC}$	Maximum Thermal Resistance from Junction to Case		2.0			$^{\circ}C/W$	

Note 1: Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

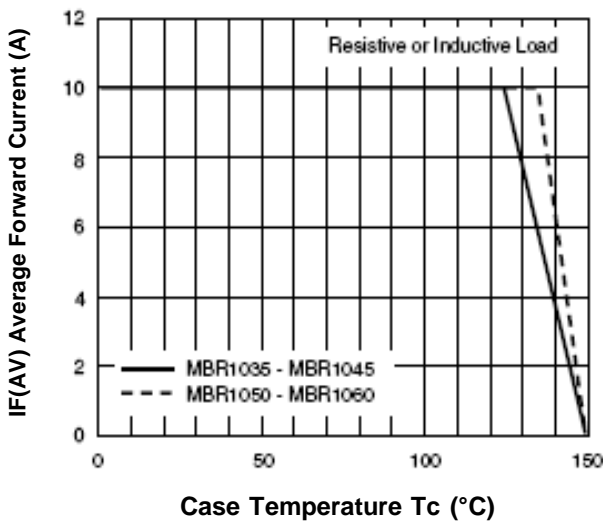


Fig.2- Max. Non-Repetitive Peak Forward Surge Current

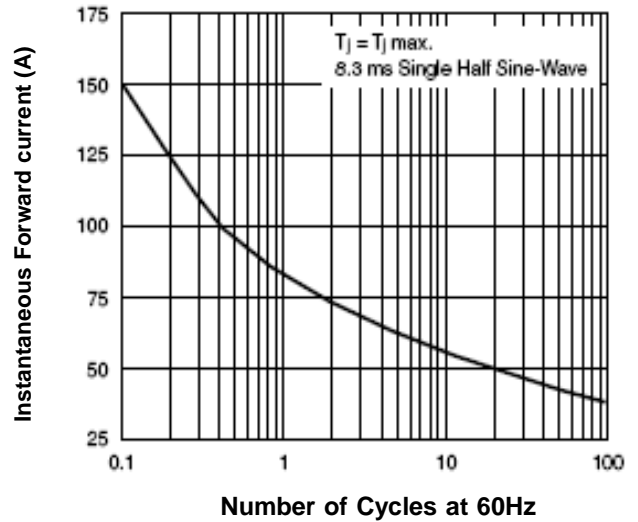


Fig.3- Typical Forward Characteristics

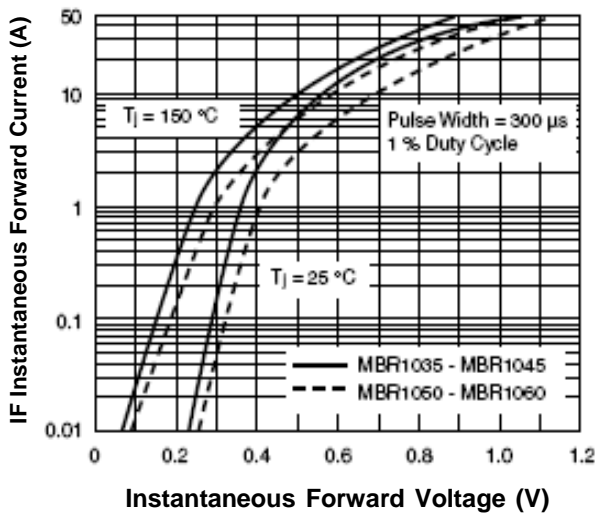
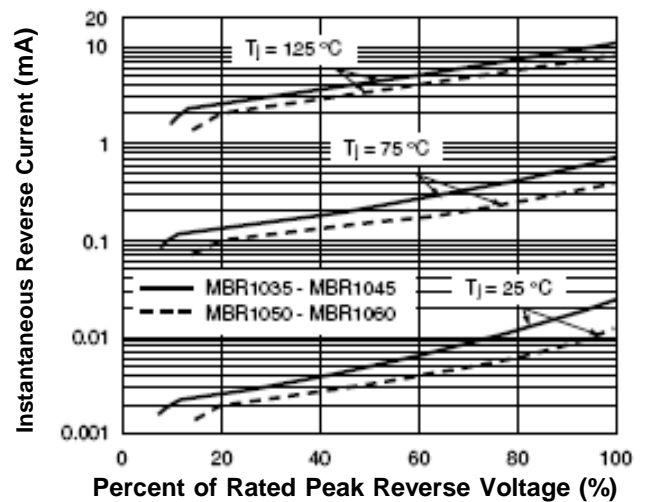


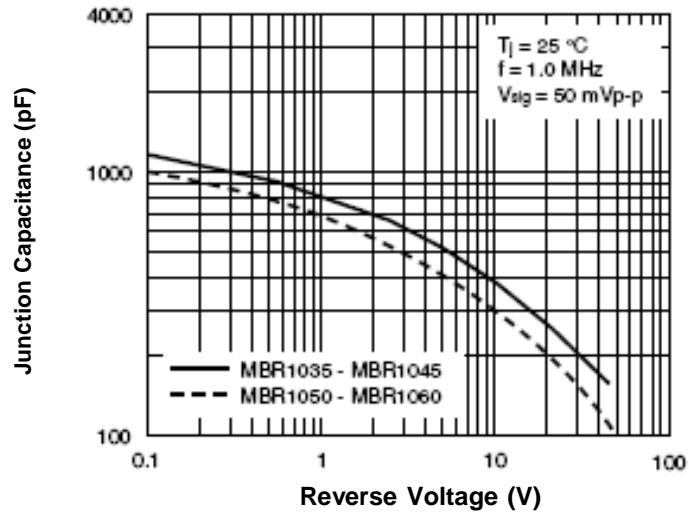
Fig.4- Typical Reverse Characteristics



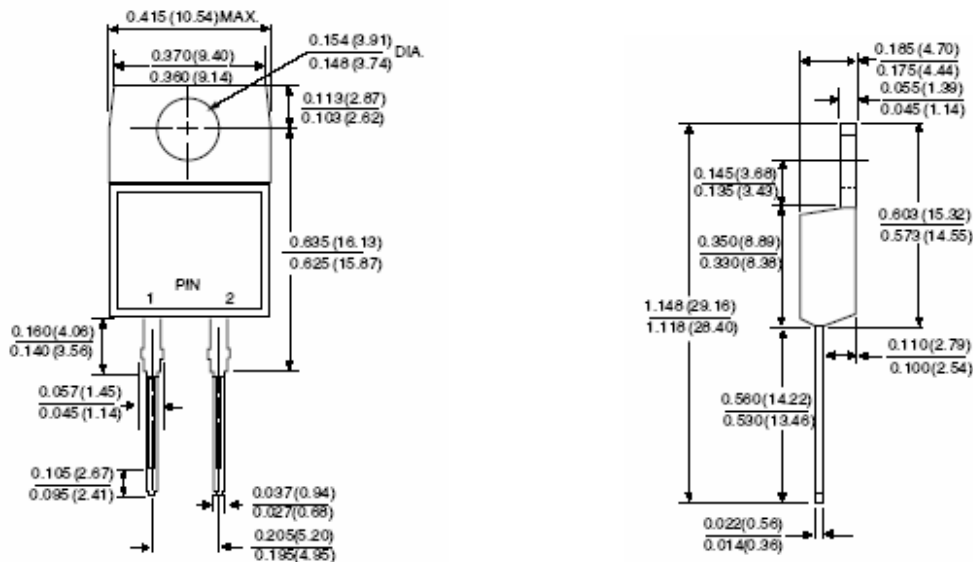
# 10A Schottky Barrier Rectifier

## MBR1035 - MBR1060

Fig.5- Typical Junction Capacitance



### Dimensions in inches (mm)



TO-220AC

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