

RoHS  
Compliant



## Description

Using the schottky barrier principle with a refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 175°C junction temperature. Typical application are in switching mode power supplies such as adaptors, DC/DC converters, free- wheeling and polarity protection diodes.

## Features

- Low forward voltage
- Low switching noise
- High current capacity
- Guarantee reverse avalanche
- Guard-ring for stress protection
- Low power loss and high efficiency
- 175°C operating junction temperature
- Low stored charge majority carrier conduction
- Plastic material used carries Underwriters Laboratory
- Flammability classification 94V-0

## Specifications

Reverse Voltage : 100 Volts

Forward Current : 20 Amperes

## Maximum Ratings

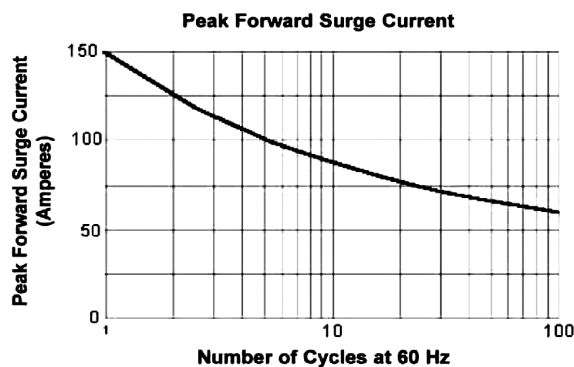
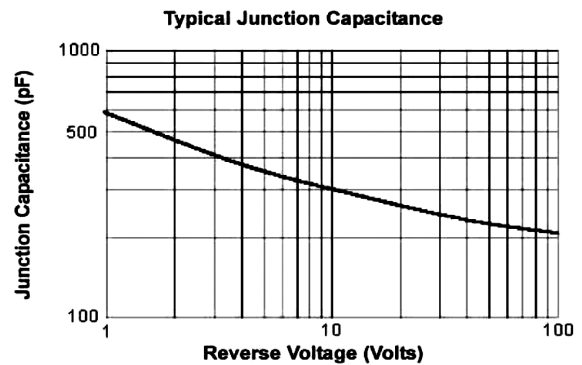
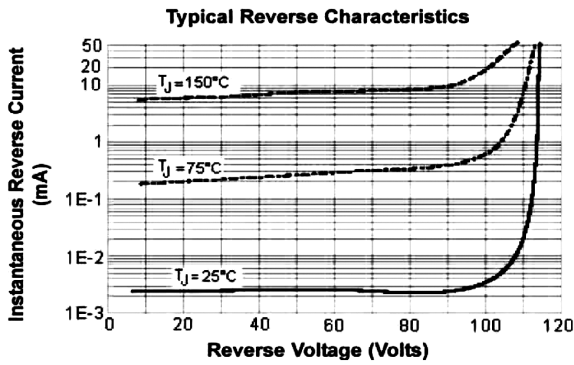
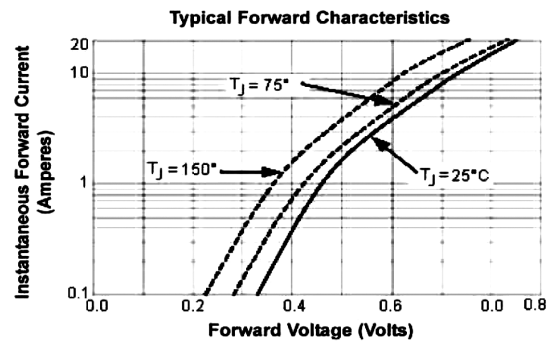
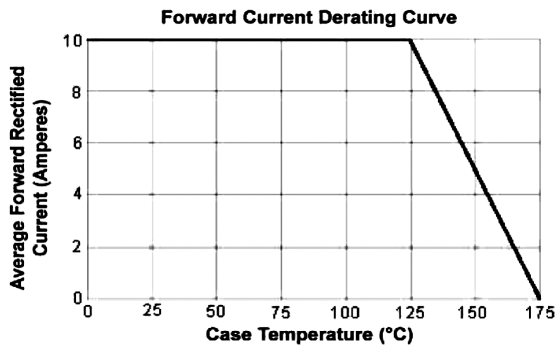
Characteristic	Symbol	Values	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	70	
Average Rectifier Forward Current Total Device (Rated $V_R$ ), $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	10	A
Peak Repetitive Forward Current (Rate $V_R$ , Square Wave, 20kHz)	$I_{FM}$	20	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	150	
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$	-65 to +175	$^\circ\text{C}$

## Thermal Resistances

Typical Thermal Resistance junction to case	$R_{\theta JC}$	3.4	$^\circ\text{C/W}$
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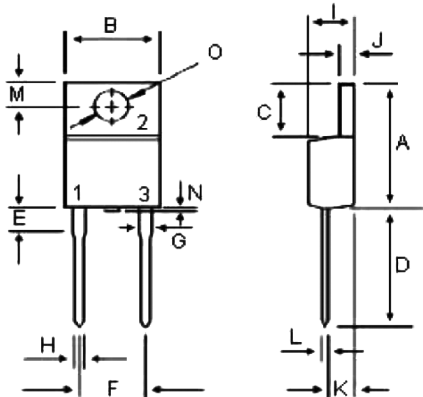
## Electrical Characteristics

Characteristic	Symbol	Values	Units
Maximum Instantaneous Forward Voltage ( $I_F = 10$ Amperes $T_C = 25^\circ\text{C}$ ) ( $I_F = 10$ Amperes $T_C = 125^\circ\text{C}$ )	$V_F$	0.85 0.76	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$ ) (Rated DC Voltage, $T_C = 125^\circ\text{C}$ )	$I_R$	0.01 10	mA



## Diagram

TO-220A



Dim.	Min.	Max.
A	14.68	15.32
B	9.78	10.42
c	6.02	6.52
D	13.06	14.62
E	3.57	4.07
F	4.84	5.32
G	1.12	1.36
H	0.72	0.96

Dim.	Min.	Max.
I	4.22	4.98
J	1.14	1.38
K	2.2	2.98
L	0.33	0.55
M	2.48	2.98
N	-	1
O	3.7	3.9

Dimensions : Millimetres

## Part Number Table

Description	Part Number
Schottky Barrier Rectifier, 100V	MBRA10100

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