RoHS



## 7.5 Amp. Schottky Barrier Rectifier

# **ITO-220AC** PIN 1 O PIN 2 O-Case Positive

Voltage	Current	
45 to 150 V	7.5 A	

#### **FEATURES**

- Ideal for automated placement
- Low power losses, high efficiency
- High surge current capability
- Guarding for overvoltage protection
- Low forward voltage drop
- Solder dip 260°C, 10s / 0.25" (6.35 mm) from case
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

#### **MECHANICAL DATA**

- Case: ITO-220AC. Epoxy meets UL 94V-0 flammability rating.
- Polarity: As marked on the body. • Mounting Torque: 5 in-lbs maximum.
- Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

#### **TYPICAL APPLICATIONS**

Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.

#### Maximun Ratings and Electrical Characteristics at 25°C

		MBRF 745	MBRF 760	MBRF 7100	MBRF 7150
$V_{RRM}$	RRM Maximum Recurrent Peak Reverse Voltage (V)		60	100	150
$V_{RMS}$	Maximum RMS Voltage (V)	31	42	70	105
VDC	Maximum DC Blocking Voltage (V)	45	60	100	150
I <sub>F (AV)</sub>	Maximum Average Forward Rectified Current See Fig.	7.5 A			
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3 ms Single Half sine-wave Superimposed on Rated Load (JEDEC Method)	150 A			
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current (Note 1)	1.0 A 0.5 A			
Tj	Operating Junction Temperature Range	− 65 to + 150 °C			
T <sub>stg</sub>	Storage Temperature Range	− 65 to + 175 °C			

#### Electrical Characteristics at Tamb = 25 °C

	Maximum Instantaneous Forward Voltage at (Note 2)	0.57 V 0.84 V 0.72 V	0.75 V 0.65 V -	0.92 V 0.82 V -	1.02 V 0.92 V -
I <sub>D</sub>	Max. Instantaneous Reverse Current @ T <sub>C</sub> =25°C	0.1 mA	0.1 mA	0.1 mA	
IR	at Rated DC Blocking Voltage (Note 1) @ T <sub>C</sub> =125°C	15 mA	10 mA	5.0 mA	
R <sub>thj-c</sub>	Maximum Thermal Resistance (Note 3)	7.0 °C/W			

1. 2.0µs Pulse Width, f=1.0 KHz

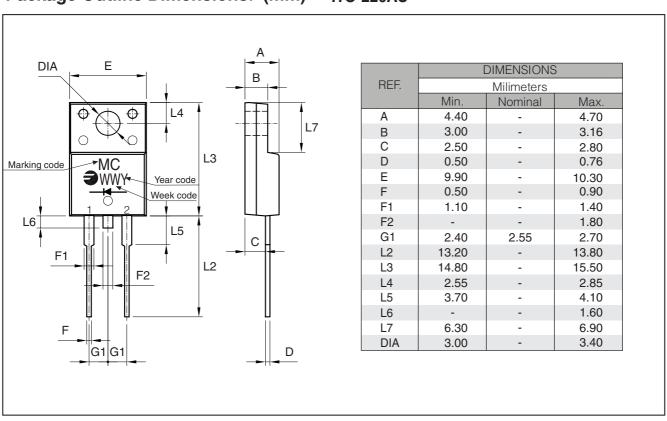
Pulse Test: 300µs Pulse Width, 1% Duty Cycle
Mounted on Heatsink Size of 50.4 mm x 76.2 mm x 6.35 mm Al-Plate.



## **Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRF760 00TUC	TU	TUBE	1,000	2.02

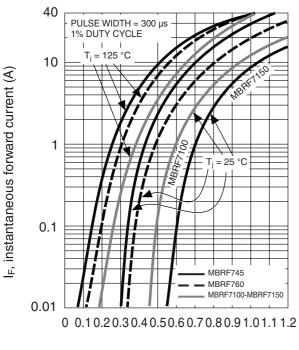
# Package Outline Dimensions: (mm) ITO-220AC





#### Ratings and Characteristics (Ta 25 °C unless otherwise noted)

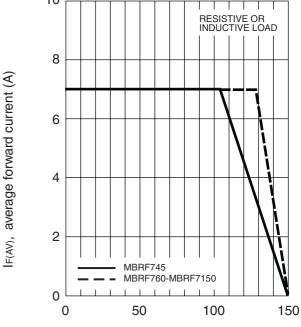
#### TYPICAL INSTANTANEOUS FORWARD **CHARACTERISTICS**



V<sub>F</sub>, forward voltage (V)

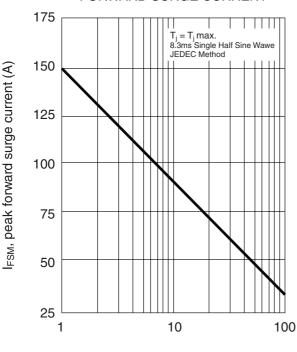
# 10 RESISTIVE OR INDUCTIVE LOAD

FORWARD CURRENT DERATING CURVE



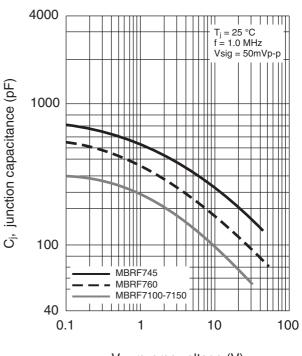
T<sub>C</sub>, case temperature (°C)

#### MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Number of cycles at 60 Hz.

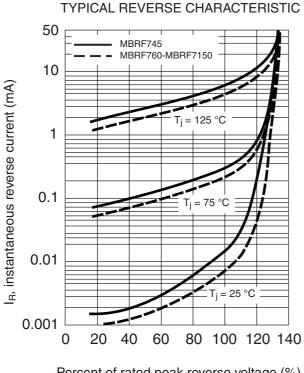
#### TYPICAL JUNCTION CAPACITANCE

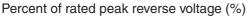


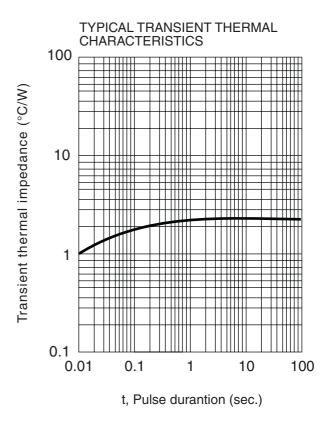
V<sub>R</sub>, reverse voltage (V)



## Ratings and Characteristics (Ta 25 °C unless otherwise noted)









#### **Revision History**

Date	Revision	Description of Changes
14-Jul-2009	0	Original Data Sheet
30-Sep-2016	1	Format update

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