



# MBR10100FAT SERIES

## 10A SCHOTTKY BARRIER RECTIFIERS

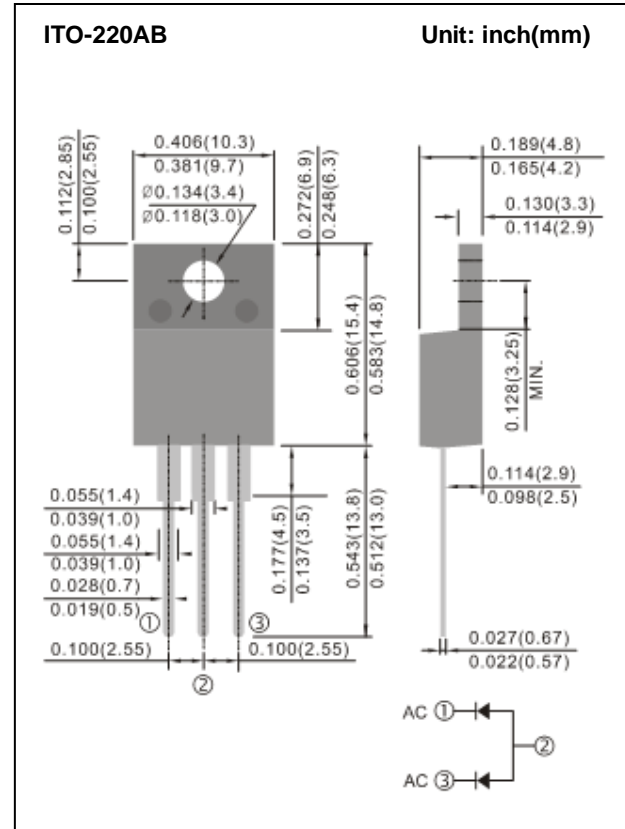
<b>Voltage</b>	<b>100~200 V</b>	<b>Current</b>	<b>10 A</b>
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### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std..(Halogen Free)

### Mechanical Data

- Case: Molded plastic, ITO-220AB
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.056 ounces, 1.6 grams
- Marking: Part number



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

PARAMETER		SYMBOL	MBR10100FAT	MBR10150FAT	MBR10200FAT	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	100	150	200	V
Maximum rms voltage		$V_{RMS}$	70	105	140	V
Maximum dc blocking voltage		$V_R$	100	150	200	V
Maximum average forward rectified current	per device per diode	$I_{F(AV)}$	10 5			A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		$I_{FSM}$	150			A
Maximum forward voltage at 5A per diode		$V_F$	0.8	0.9		V
Maximum dc reverse current at rated dc blocking voltage per diode	$T_J = 25^\circ\text{C}$	$I_R$	50			$\mu\text{A}$
	$T_J = 125^\circ\text{C}$		20			mA
Typical thermal resistance per diode		(Note 1) $R_{\theta JC}$	7.7			$^\circ\text{C/W}$
Operating junction temperature range		$T_J$	-55 to +175			$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-55 to +175			$^\circ\text{C}$

Note : 1. Semi-infinite heatsink.



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## TYPICAL CHARACTERISTIC CURVES

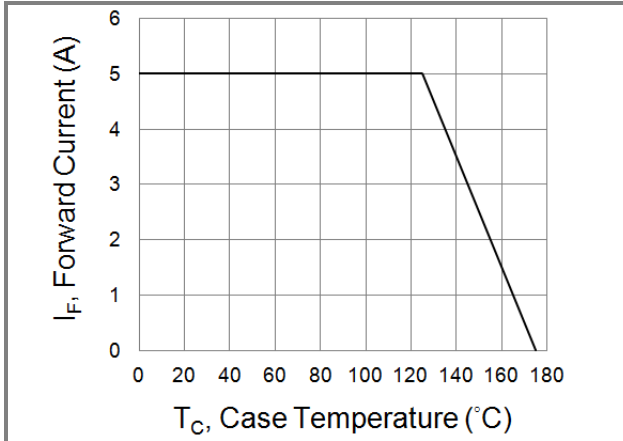


Fig.1 Forward Current Derating Curve

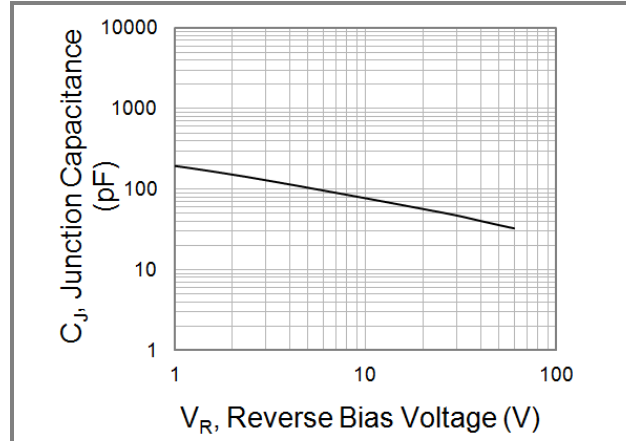


Fig.2 Typical Junction Capacitance

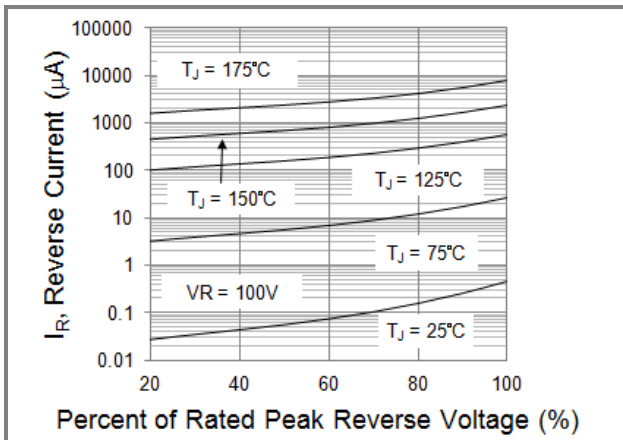


Fig.3 Typical Reverse Characteristics

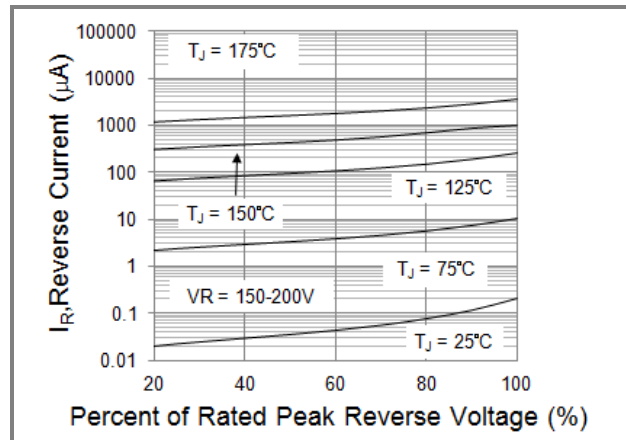


Fig.4 Typical Reverse Characteristics

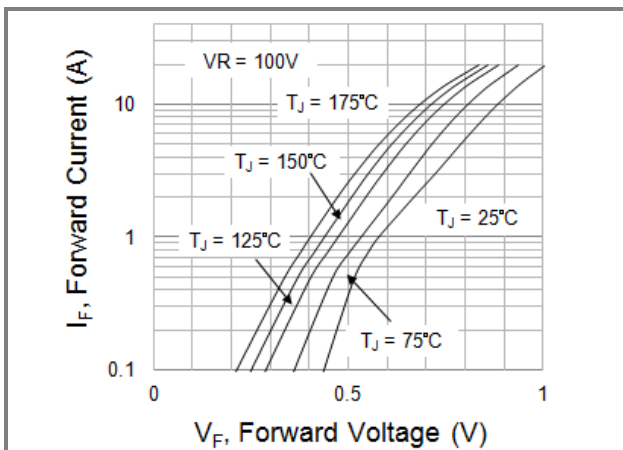


Fig.5 Typical Forward Characteristics

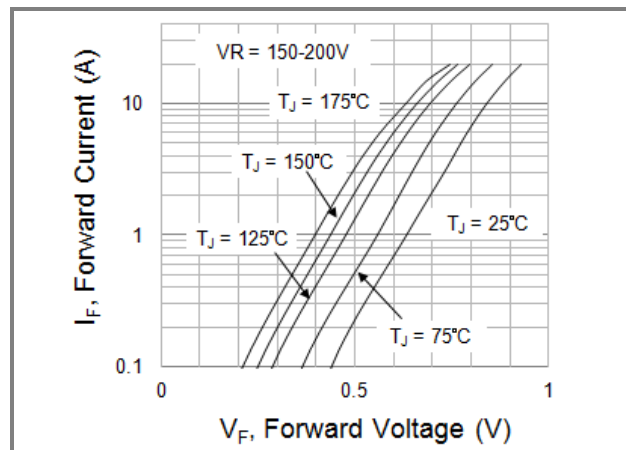


Fig.6 Typical Forward Characteristics

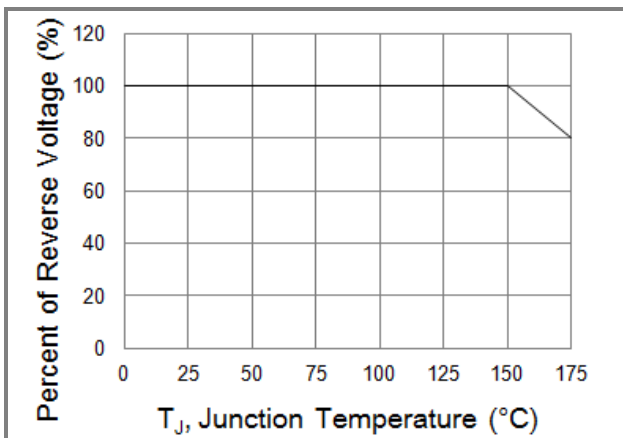


Fig.7 Operating Temperature Derating Curve



## MBR10100FAT SERIES

### Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
MBR10100FAT_T0_00001	ITO-220AB	50pcs / Tube	MBR10100FAT	Halogen free
MBR10150FAT_T0_00001	ITO-220AB	50pcs / Tube	MBR10150FAT	Halogen free
MBR10200FAT_T0_00001	ITO-220AB	50pcs / Tube	MBR10200FAT	Halogen free



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