

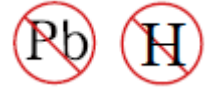


YEA SHIN TECHNOLOGY CO., LTD

MBR1040F THRU MBR10200F

10A SCHOTTKY Barrier Rectifier

Voltage - 40 to 200 Volts Current - 10 Amperes

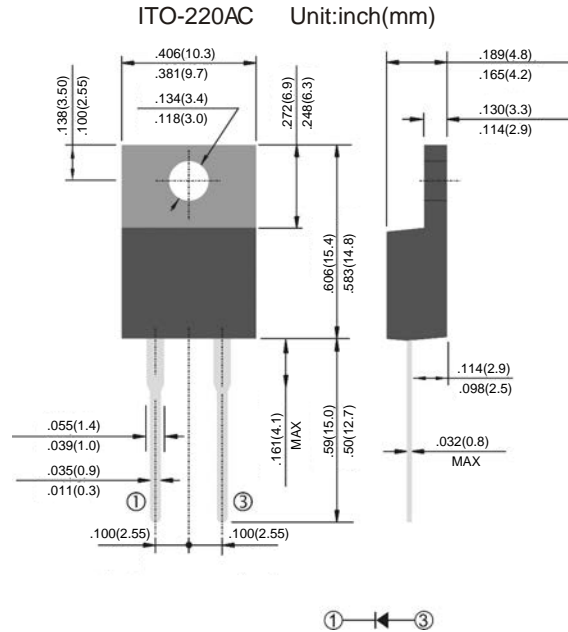


### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- 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 comply with EU RoHS.

### Mechanical Data

- Case: ITO-220AC molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



### Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

(Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

Parameters	Symbol	MBR 1040F	MBR 1045F	MBR 1050F	MBR 1060F	MBR 1080F	MBR 1090F	MBR 10100F	MBR 10150F	MBR 10200F	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	10									A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150									A
Maximum Instantaneous Forward Voltage at 10.0A	$V_F$	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	$I_R$	0.1 20									mA
Maximum Thermal Resistance	$R_{\theta JC}$	3									$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							-55 to +175		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

# DEVICE CHARACTERISTICS

## MBR1040F THRU MBR10200F

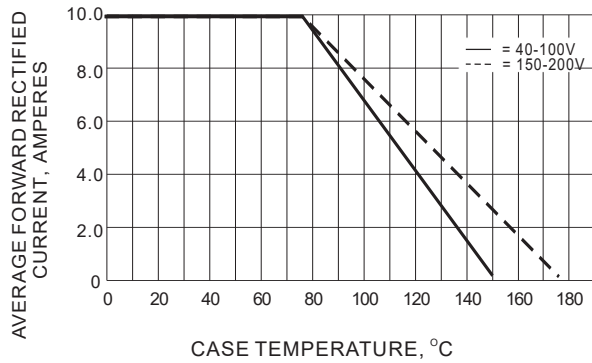


Fig.1- FORWARD CURRENT DERATING CURVE

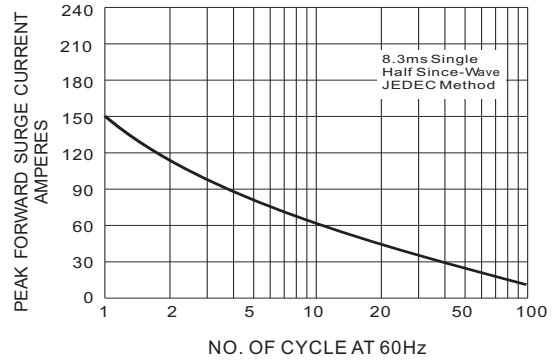


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

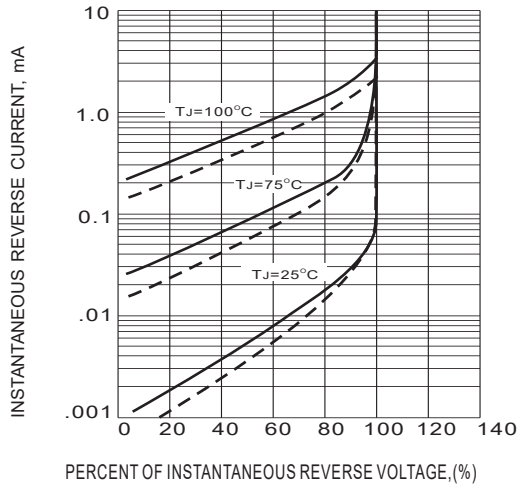


Fig.3- TYPICAL REVERSE CHARACTERISTICS

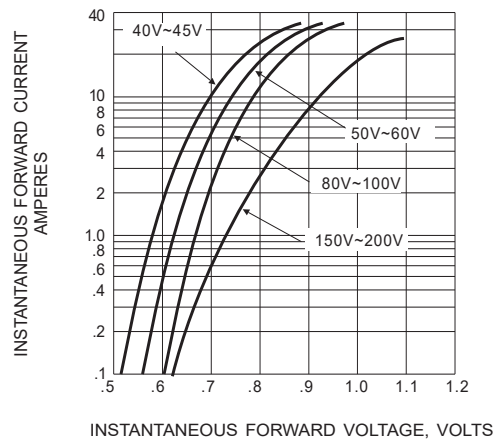


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS