

## MBR1040~MBR10200

### 10 AMPERES SCHOTTKY BARRIER RECTIFIERS

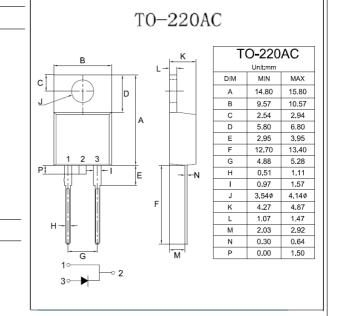
## VOLTAGE 40 to 200 Volts

CURRENT

## 10 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
  Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- · High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications.
- · Lead free in compliance with EU RoHS .



#### **MECHANICAL DATA**

- Case: TO-220AC molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

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PARAMETER	SYMBOL	MBR1040	MBR1045	MBR1050	MBR1060	MBR1080	MBR1090	MBR10100	MBR10150	MBR10200	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward (See Figure 1)	$I_{F(AV)}$	10							A		
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>fsm</sub>	100 120							A		
Maximum Forward Voltage at 10A	V <sub>F</sub>	0.7 0.8			0.85			0.92		V	
Maximum DC Reverse Current at Rated DC Blocking T_=25°C Voltage T_=100°C	I <sub>R</sub>	0.1 20									mA
Typical Thermal Resistance	$R_{_{ ext{ hetaJC}}}$	3								°C / W	
Operating Junction and Storage Temperature Range	T_,T <sub>stg</sub>	-5 5 to +150 -65 to +175							°C		



# RATING AND CHARACTERISTIC CURVES

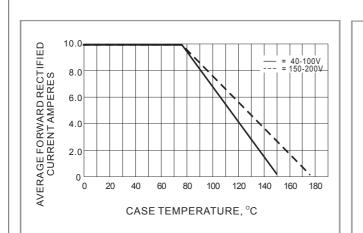
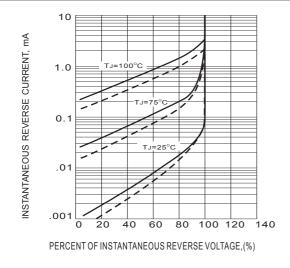


Fig.1- FORWARD CURRENT DERATING CURVE





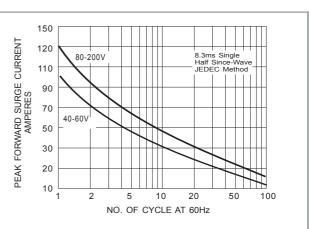


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

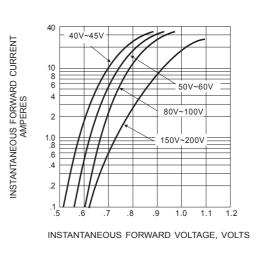


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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