



MBR1040 THRU MBR10200

Schottky Barrier Rectifiers

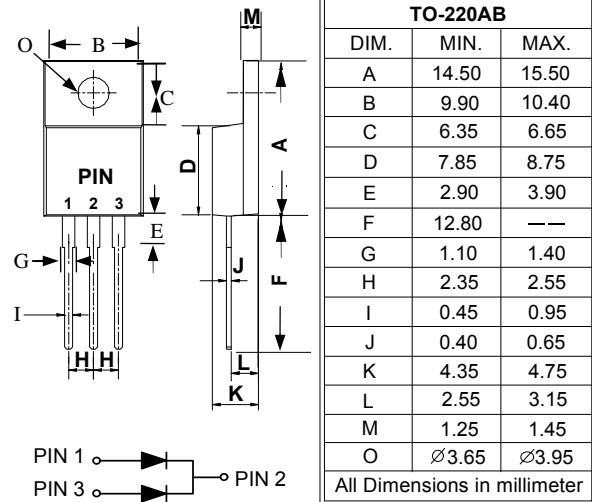
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. 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: TO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

TO-220AB



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%

PARAMETER	SYMBOL	MBR 1040	MBR 1045	MBR 1050	MBR 1060	MBR 1080	MBR 10100	MBR 10150	MBR 10200	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	150	200	V
Maximum Average Forward Current (See fig. 1)	$I_{F(AV)}$	10								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100				110				A
Maximum Forward Voltage at 5A, per leg	V_F	0.6	0.75		0.85		0.92		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T = 25^\circ\text{C}$ $T = 125^\circ\text{C}$	I_R	0.05 20				0.02 20				mA
Typical Thermal Resistance	$R_{\theta JC}$	3								$^\circ\text{C} / \text{W}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to + 150						-55 to + 175		$^\circ\text{C}$



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 - FORWARD CURRENT DERATING CURVE

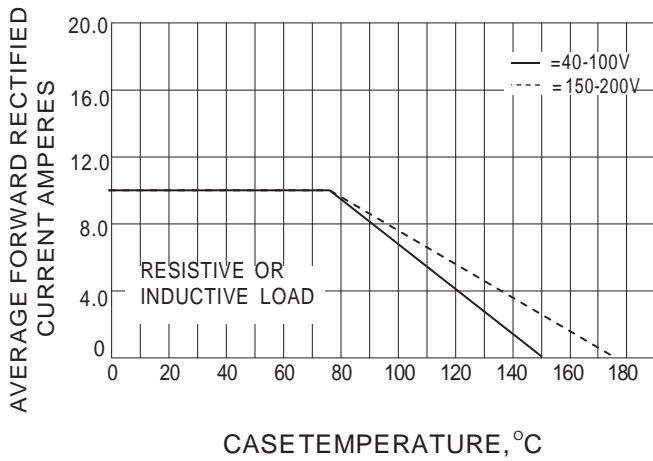


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

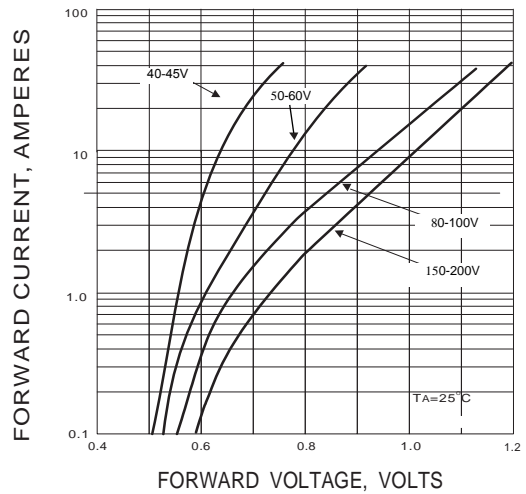


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

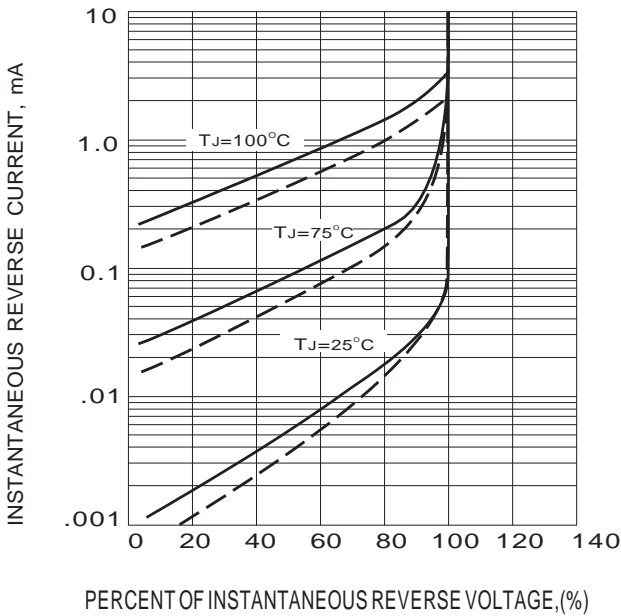


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

