



MBR1040 THRU MBR10200

Schottky Barrier Rectifiers

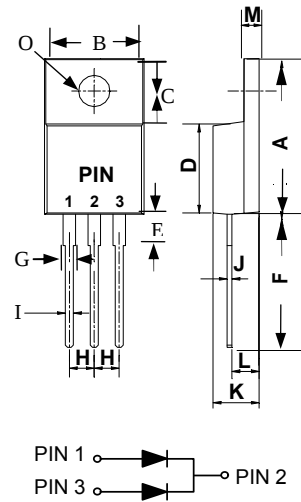
FEATURES

- 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



TO-220AB		
DIM.	MIN.	MAX.
A	14.50	15.50
B	9.90	10.40
C	6.35	6.65
D	7.85	8.75
E	2.90	3.90
F	12.80	—
G	1.10	1.40
H	2.35	2.55
I	0.45	0.95
J	0.40	0.65
K	4.35	4.75
L	2.55	3.15
M	1.25	1.45
O	Ø3.65	Ø3.95
All Dimensions in millimeter		

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°C T =125°C	I _R	0.05 20				0.02 20				mA
Typical Thermal Resistance	R _{θJC}	3								°C / W
Operating and Storage Junction Temperature Range	T _J ,T _{STG}	-55 to + 150						-55 to + 175		°C



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

Fig.1 - FORWARD CURRENT DERATING CURVE

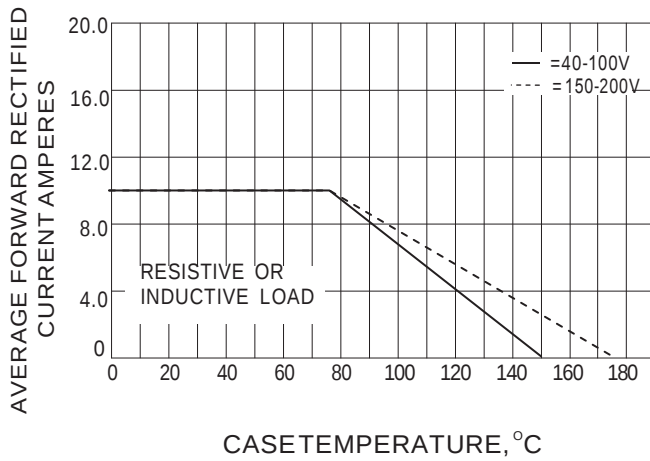


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

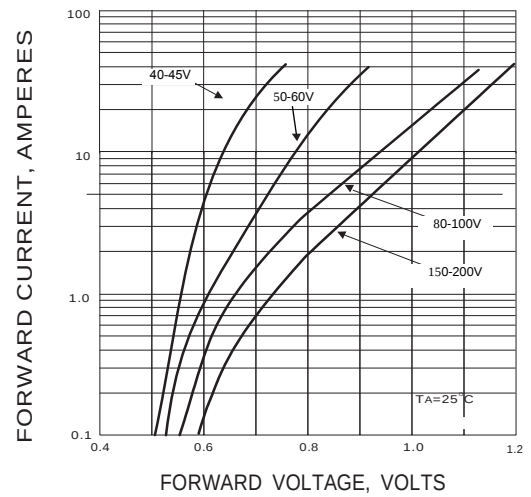


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

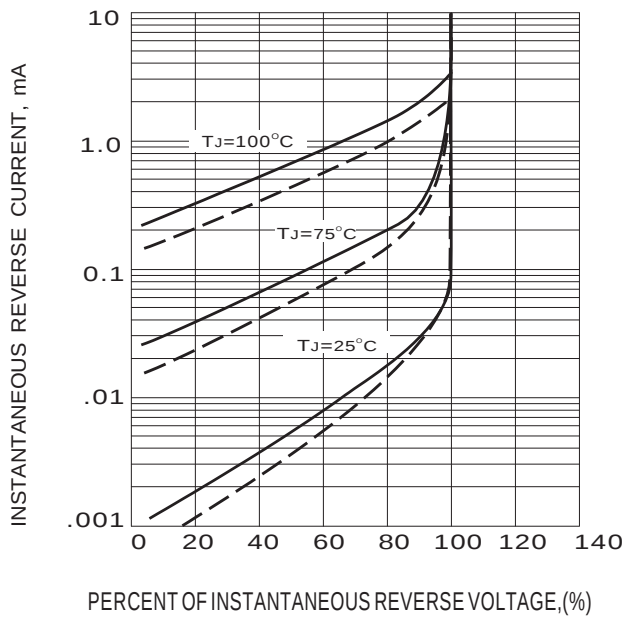


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

