



# MBR1040 THRU MBR10200

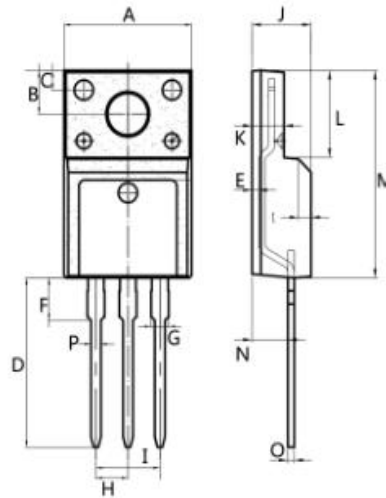
## Schottky Barrier Rectifiers

### 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: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



### ITO- 220AB

Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2.65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84

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	$R_{\theta JC}$	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

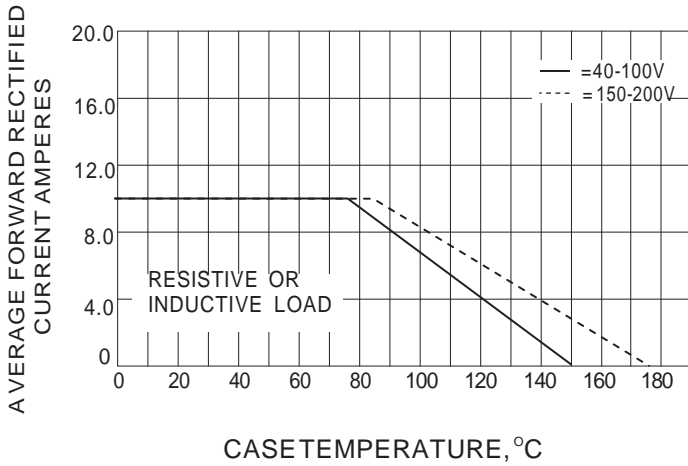


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

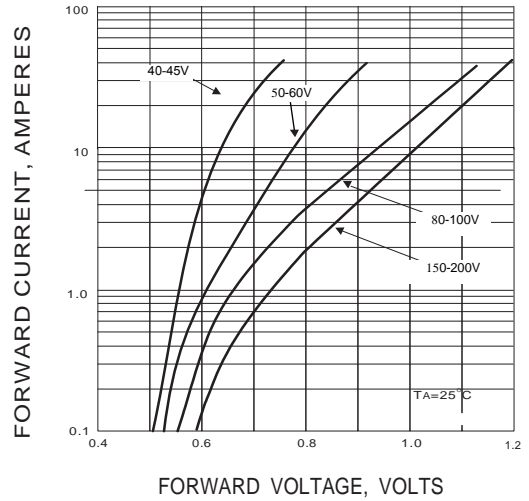


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

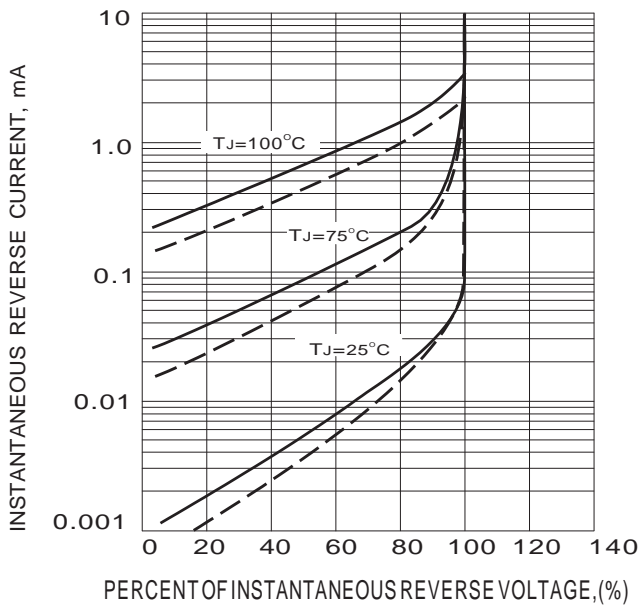


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

