



# MBR2040 THRU MBR20200

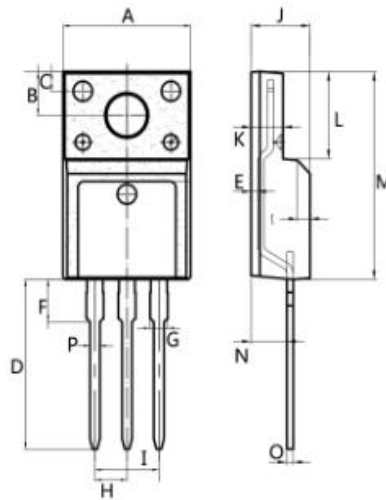
## Schottky Barrier Rectifiers

### 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 2040	MBR 2045	MBR 2050	MBR 2060	MBR 2080	MBR 20100	MBR 20150	MBR 20200	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)	$I_{F(AV)}$	20								A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	150								A	
Maximum Forward Voltage at 10A, per leg	$V_F$	0.65		0.75		0.85		0.92		V	
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	0.05			0.02			20		mA	
Typical Thermal Resistance	$R_{\theta JC}$	2								$^\circ\text{C} / \text{W}$	
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 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

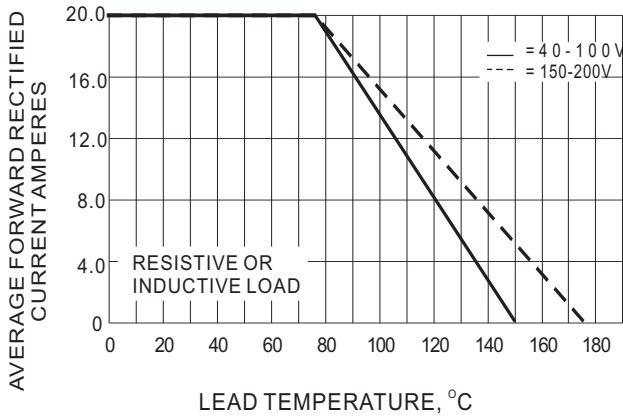


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

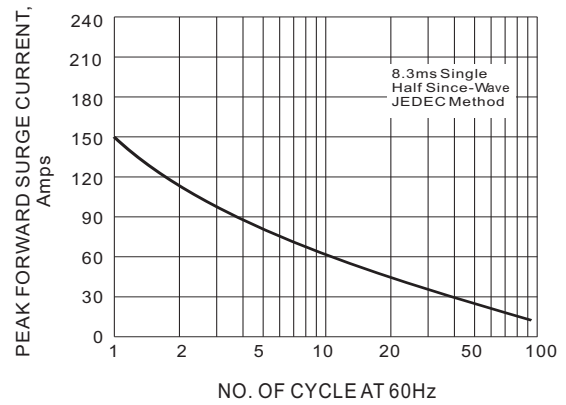


Fig.3- TYPICAL REVERSE CHARACTERISTICS

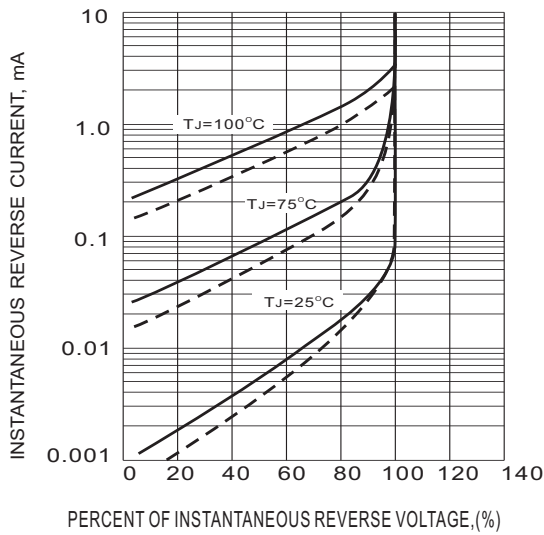


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

