



MBR3040 THRU MBR30200

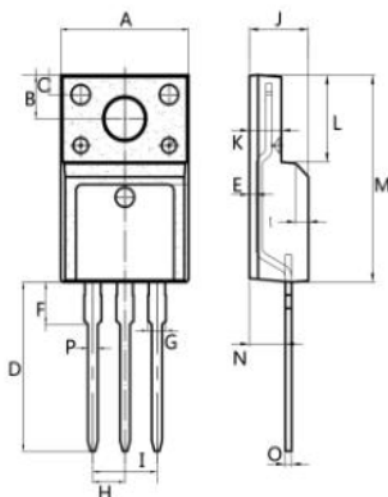
Schottky Barrier Rectifiers

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
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 2011/65/EU directives

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 3040	MBR 3045	MBR 3050	MBR 3060	MBR 3080	MBR 3090	MBR 30100	MBR 30150	MBR 30200	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	I _{F(AV)}	30									A
Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200									A
Maximum Forward Voltage at 15A per leg	V _F	0.65		0.75		0.85			0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _J =25 °C T _J =125°C	I _R	0.05 20									mA
Typical Thermal Resistance	R _{θJC}	1.4									°C / W
Operating Junction and Storage 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

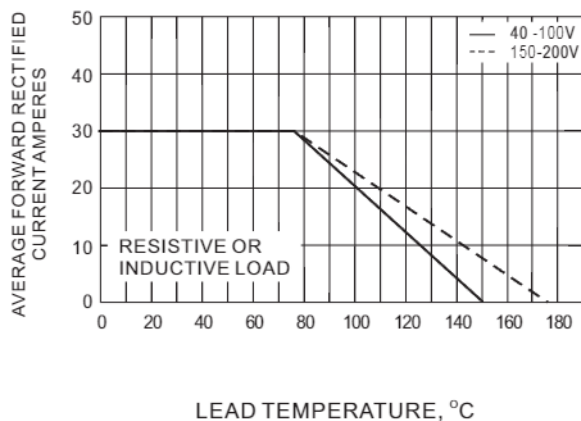


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

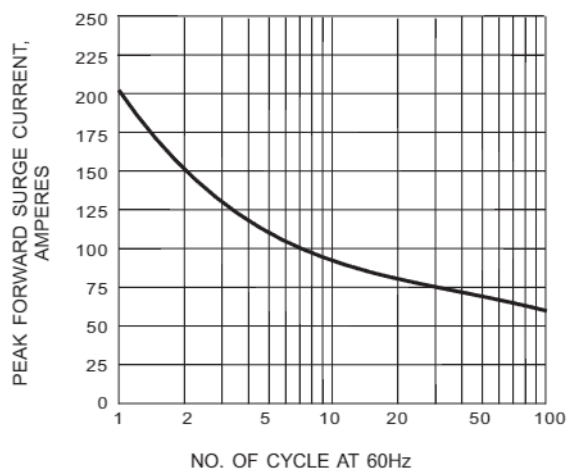


Fig.3- TYPICAL REVERSE CHARACTERISTIC

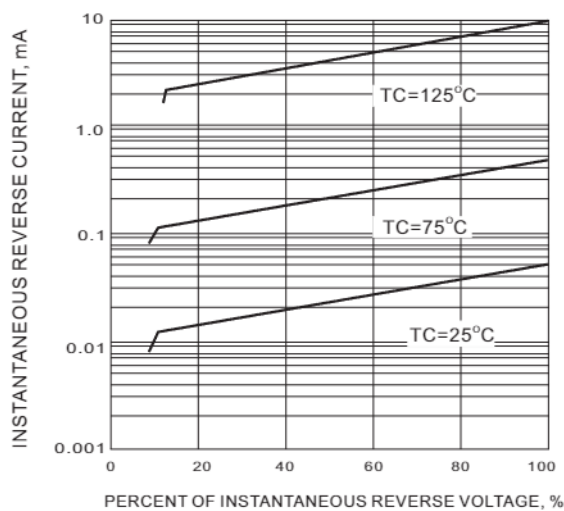


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

