MBR3040 THRU MBR30200

Schottky Barrier Rectifiers

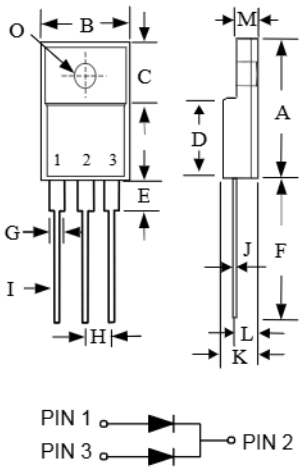
FEATURES

- 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 polarlity 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



ITO-220AB		
DIM.	MIN.	MAX.
A	14.90	15.90
B	9.90	10.40
C	6.45	7.15
D	7.85	8.75
E	2.90	3.90
F	12.8	——
G	1.10	1.4
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	2.60	3.10
O	⌀3.00	⌀3.50
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	0.55		0.7		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	$R_{\theta JC}$	1.4									°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							-55 to + 175		°C

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1- FORWARD CURRENT DERATING CURVE

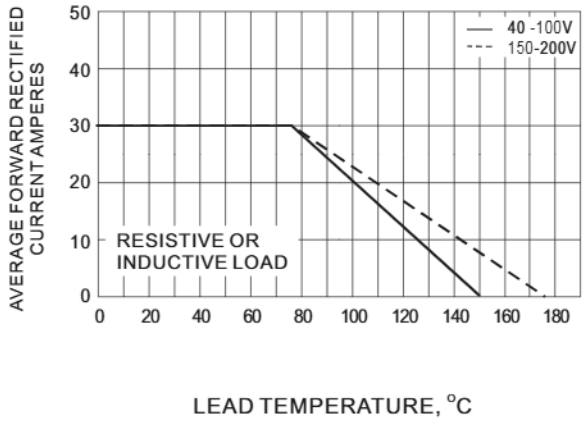


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

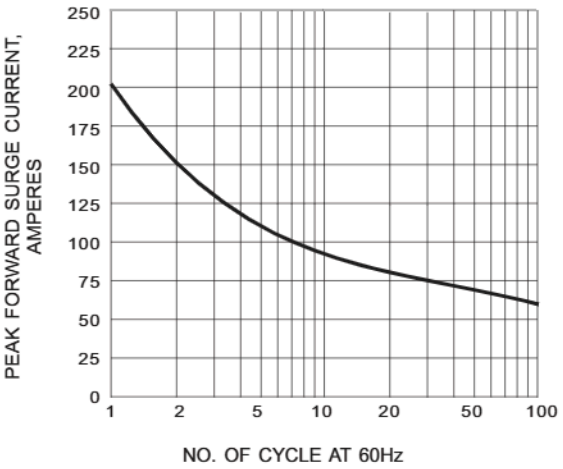


Fig.3- TYPICAL REVERSE CHARACTERISTIC

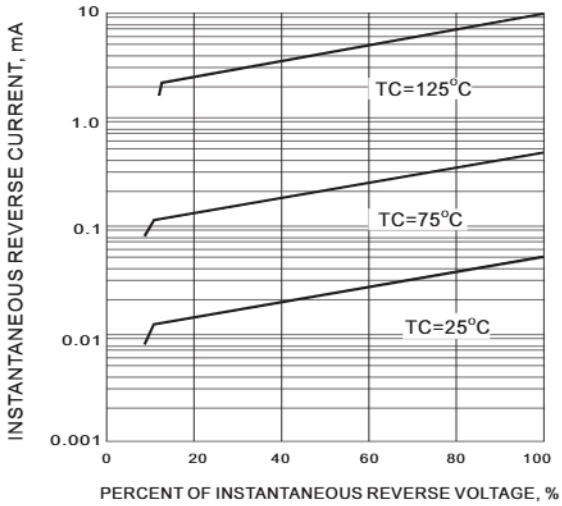


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC