YEA SHIN TECHNOLOGY CO., LTD

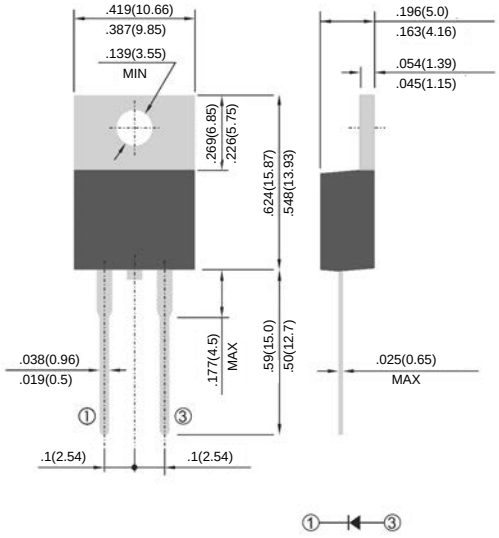
MBR1040 THRU MBR10200

10A SCHOTTKY Barrier Rectifier
Voltage - 40 to 200 Volts Current – 10 Amperes

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.

TO-220AC Unit:inch(mm)



Mechanical Data

- Case: TO-220AC molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

(Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

Parameters	Symbol	MBR 1040	MBR 1045	MBR 1050	MBR 1060	MBR 1080	MBR 1090	MBR 10100	MBR 10150	MBR 10200	Unit
Maximum Repetitive 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 Froward Rectified Current	$I_{(AV)}$	10									A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150									A
Maximum Instantaneous Forward Voltage at 10.0A	V_F	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current Ta=25℃ at Rated DC Blocking Voltage Ta=100℃	I_R	0.1 20									mA
Maximum Thermal Resistance	$R_{\theta JC}$	3									℃/W
Operating Temperature Range	T_J	-55 to +150							-55 to +175		℃
Storage Temperature Range	T_{STG}	-55 to +150							-55 to +175		℃

DEVICE CHARACTERISTICS

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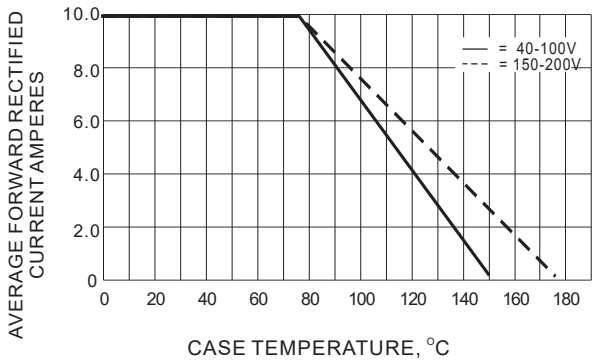

Fig.1- FORWARD CURRENT DERATING CURVE

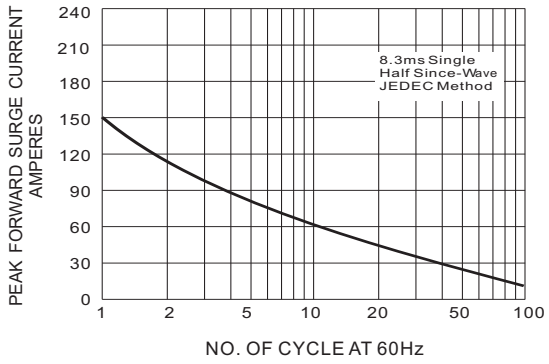

Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

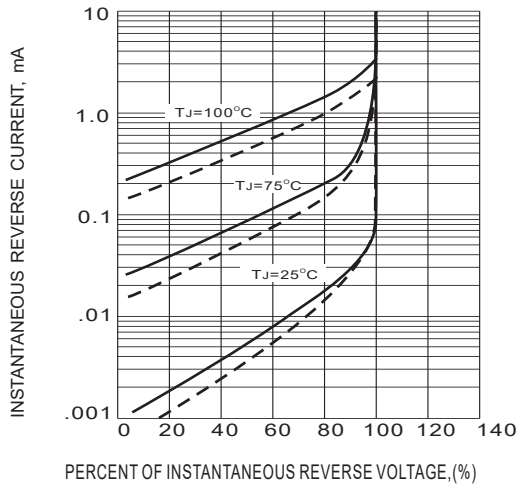

Fig.3- TYPICAL REVERSE CHARACTERISTICS

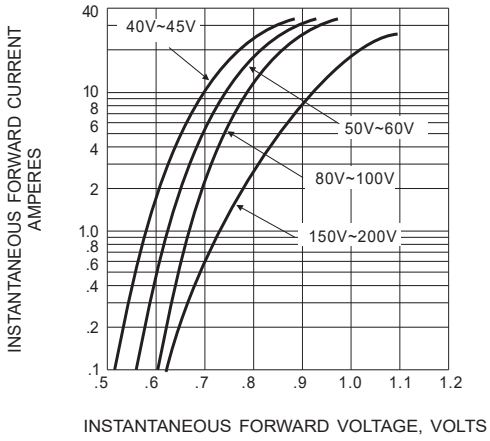

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS