

MBR1040~MBR10200

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volt **CURRENT** 10 Ampere

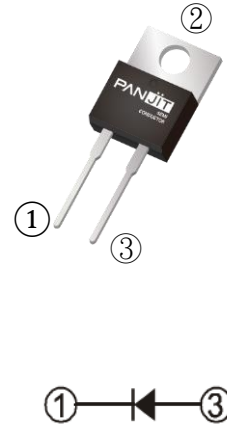
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- 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 compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : TO-220AC molded plastic
- Terminals : solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : As marked.
- Approx. Weight : 1.8903 grams

TO-220AC



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	MBR1040	MBR1045	MBR1050	MBR1060	MBR1080	MBR1090	MBR10100	MBR10150	MBR10200	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	$I_{F(AV)}$	10									A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150									A	
Maximum Forward Voltage at 10A, per leg	V_F	0.7		0.75		0.8		0.9		V		
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R	0.05					20					mA
Typical Thermal Resistance	$R_{\theta JC}$	3					°C / W					
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150				-65 to +175					°C	

Notes : Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

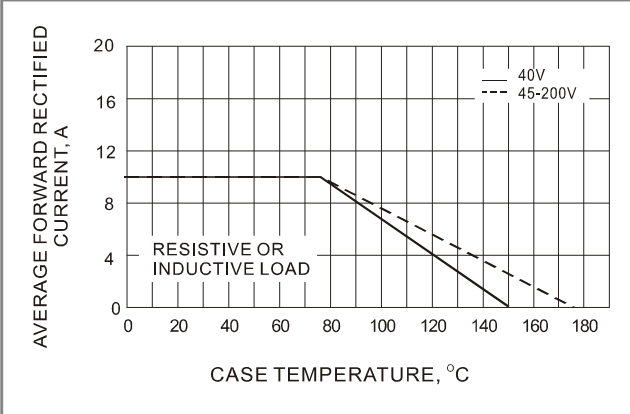


Fig.1 FORWARD CURRENT DERATING CURVE

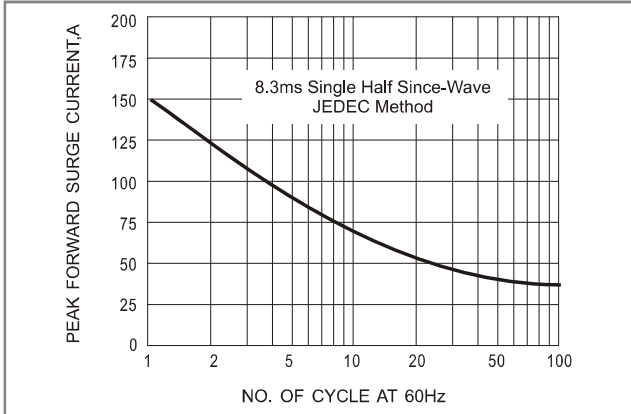


Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

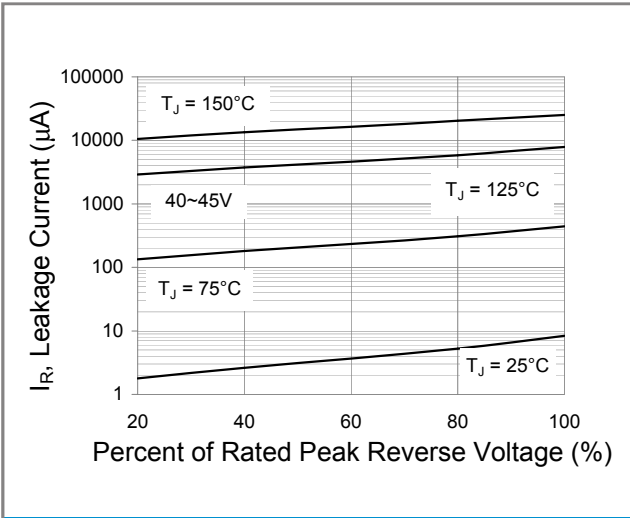


Fig.3 TYPICAL REVERSE CHARACTERISTICS

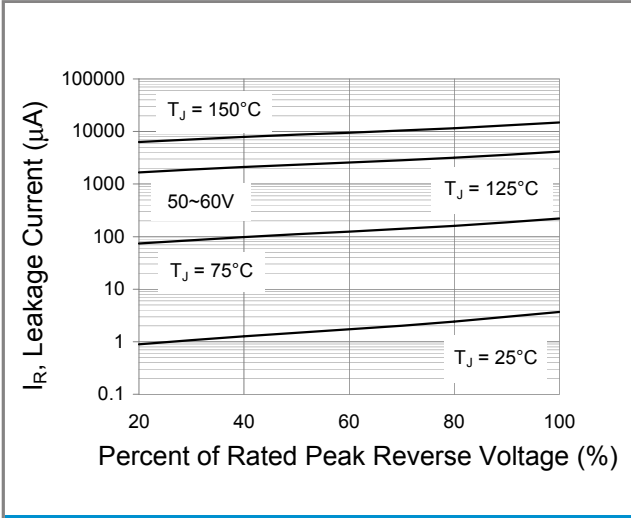


Fig.4 TYPICAL REVERSE CHARACTERISTICS

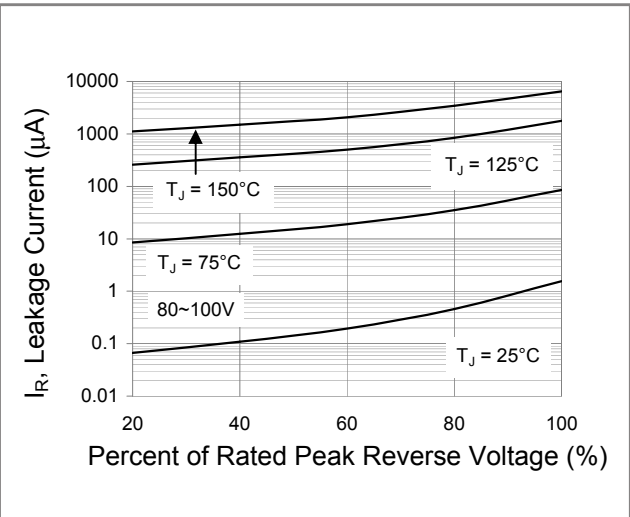


Fig.5 TYPICAL REVERSE CHARACTERISTICS

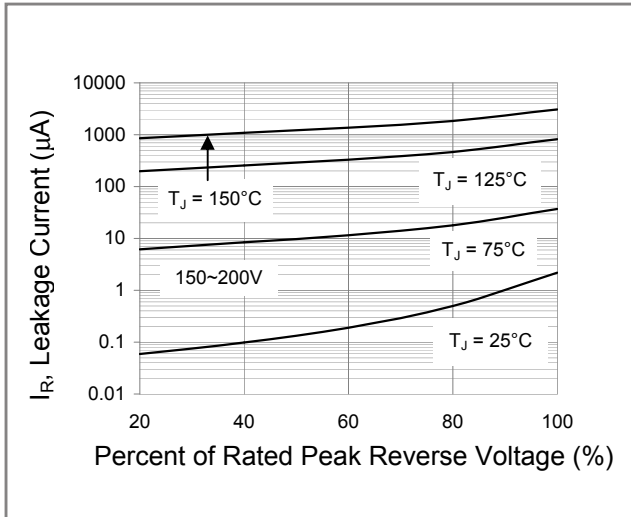


Fig.6 TYPICAL REVERSE CHARACTERISTICS

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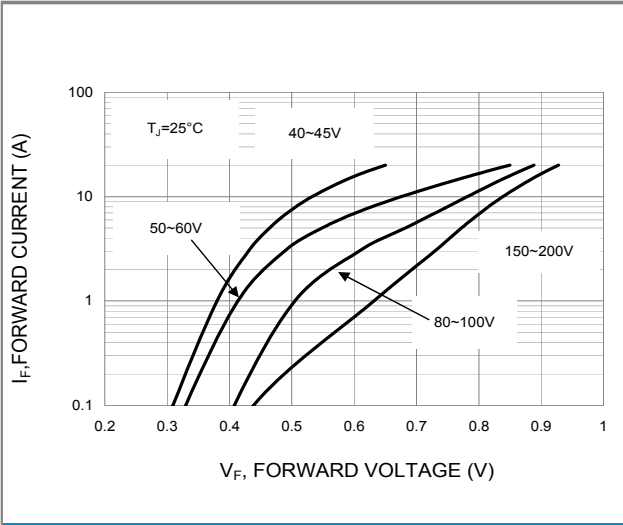


Fig.7 TYPICAL FORWARD CHARACTERISTIC

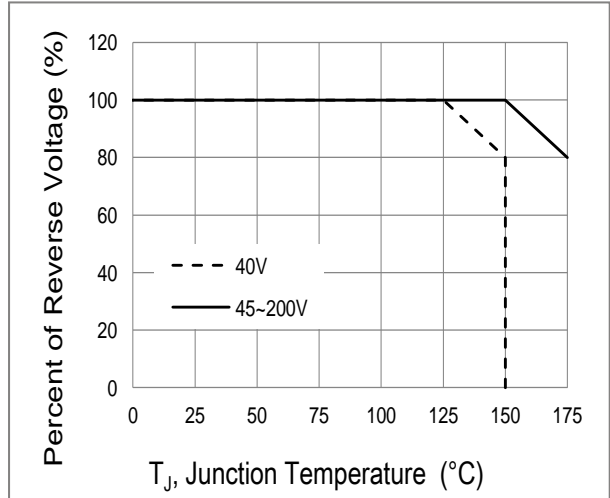


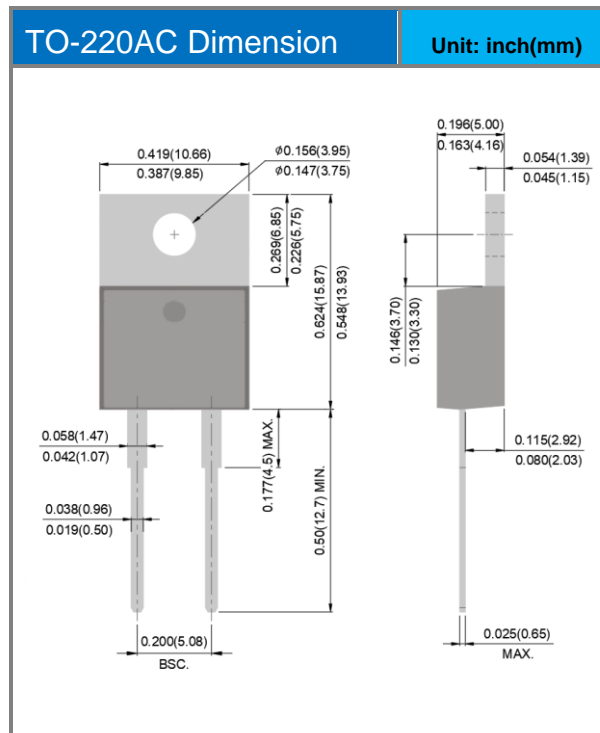
Fig.8 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBR1040	TO-220AC	50pcs / Tube	MBR1040
MBR1045	TO-220AC	50pcs / Tube	MBR1045
MBR1050	TO-220AC	50pcs / Tube	MBR1050
MBR1060	TO-220AC	50pcs / Tube	MBR1060
MBR1080	TO-220AC	50pcs / Tube	MBR1080
MBR1090	TO-220AC	50pcs / Tube	MBR1090
MBR10100	TO-220AC	50pcs / Tube	MBR10100
MBR10150	TO-220AC	50pcs / Tube	MBR10150
MBR10200	TO-220AC	50pcs / Tube	MBR10200

Packaging Information



MBR1040~MBR10200

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