

MBR3040PT SERIES

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volt **CURRENT** 30 Ampere

TO-247AD / TO-3P

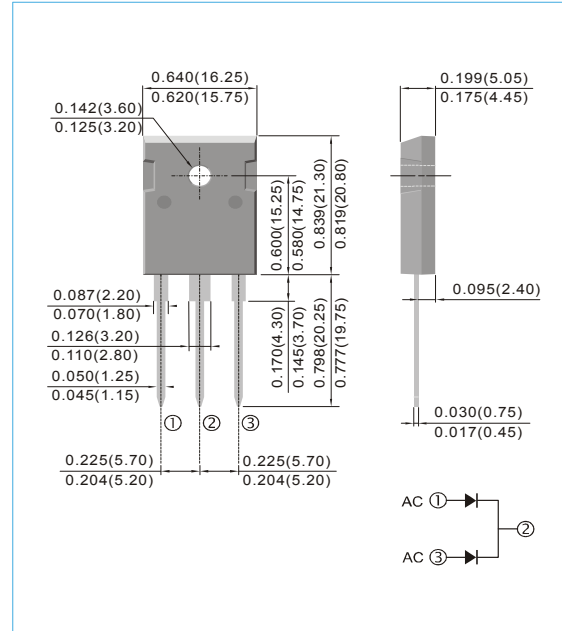
Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters free wheeling , and polarity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: TO-247AD/TO-3P molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Approx. Weight: 0.2245 ounces, 6.3673 grams.



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	MBR3040PT	MBR3045PT	MBR3050PT	MBR3060PT	MBR3080PT	MBR3090PT	MBR30100PT	MBR30150PT	MBR30200PT	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 : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	275									A
Maximum Forward Voltage at 15A per leg	V_F	0.7		0.75		0.8			0.9		V
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R	0.1					0.05				mA
Typical Thermal Resistance	$R_{\theta JC}$	1.4									$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150				-65 to +175					$^\circ\text{C}$

Note : Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

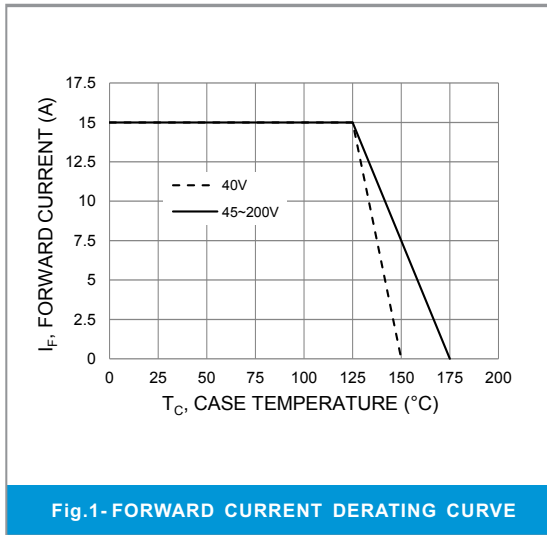


Fig.1- FORWARD CURRENT DERATING CURVE

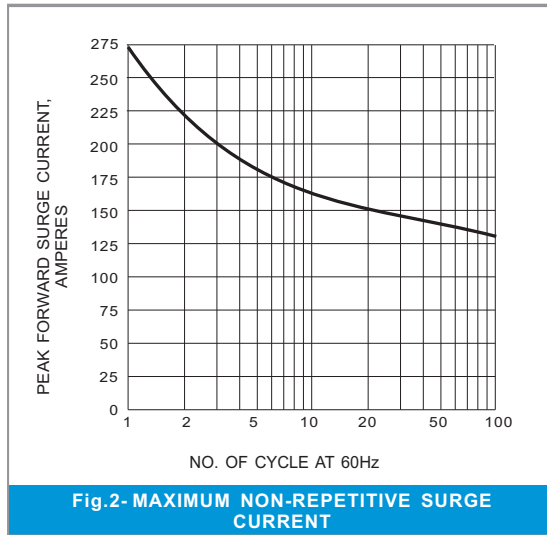


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

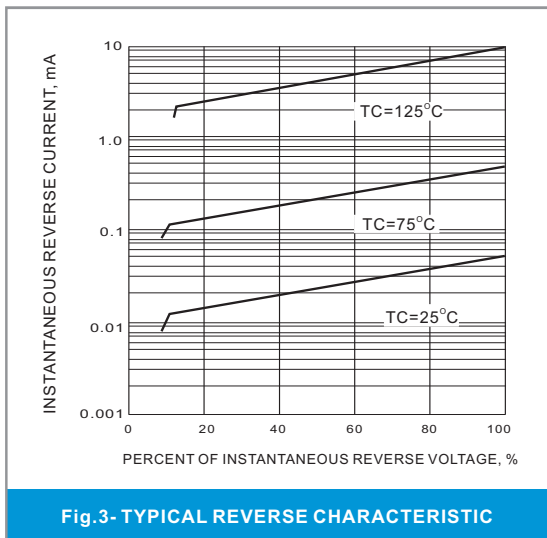


Fig.3- TYPICAL REVERSE CHARACTERISTIC

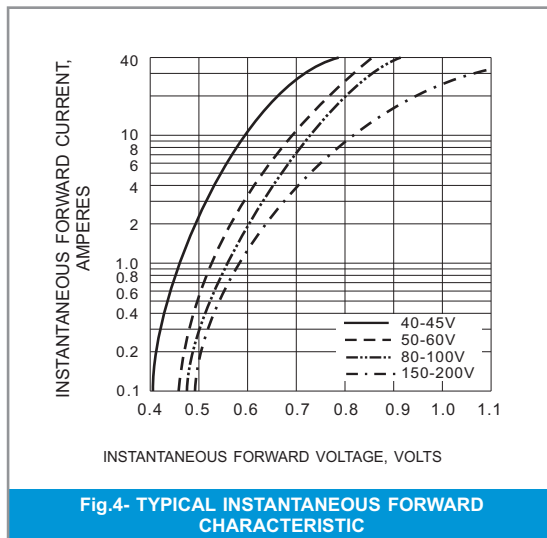


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

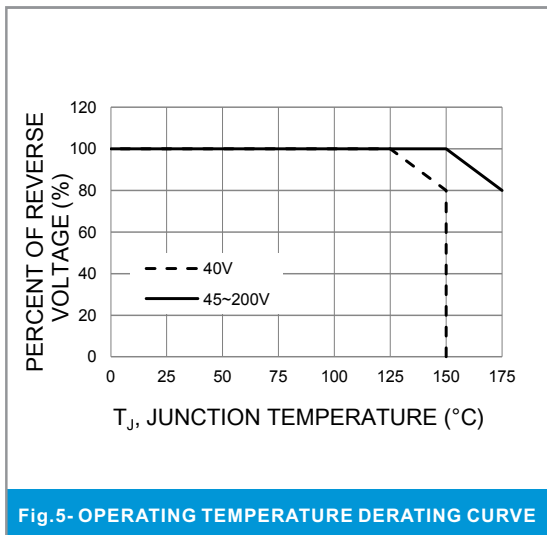


Fig.5- OPERATING TEMPERATURE DERATING CURVE

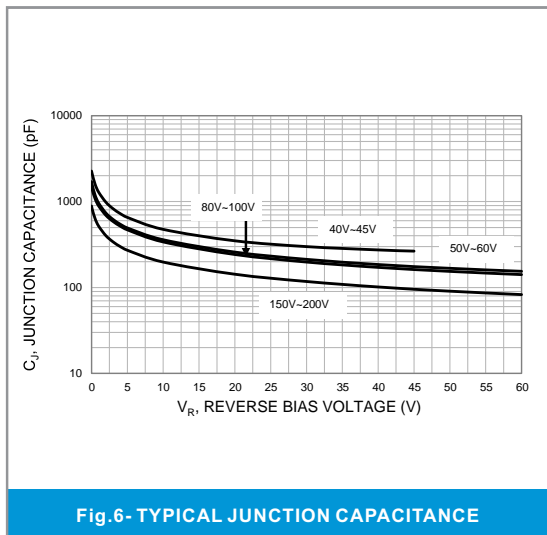


Fig.6- TYPICAL JUNCTION CAPACITANCE

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBR3040PT	TO-247AD	30 pcs / tube	MBR3040PT
MBR3045PT	TO-247AD	30 pcs / tube	MBR3045PT
MBR3050PT	TO-247AD	30 pcs / tube	MBR3050PT
MBR3060PT	TO-247AD	30 pcs / tube	MBR3060PT
MBR3080PT	TO-247AD	30 pcs / tube	MBR3080PT
MBR3090PT	TO-247AD	30 pcs / tube	MBR3090PT
MBR30100PT	TO-247AD	30 pcs / tube	MBR30100PT
MBR30150PT	TO-247AD	30 pcs / tube	MBR30150PT
MBR30200PT	TO-247AD	30 pcs / tube	MBR30200PT

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