



MBR4040PT~MBR40200PT

40 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volts **CURRENT** 40 Amperes

TO-3P / TO-247AD

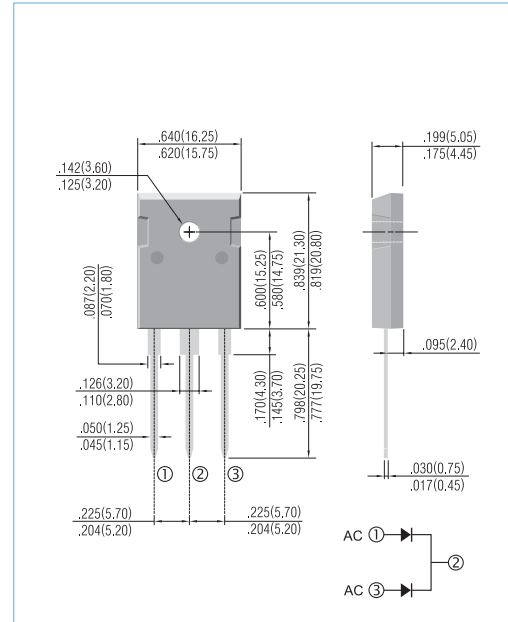
Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- 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.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: TO-3P / TO-247AD molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



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	MBR4040PT	MBR4045PT	MBR4050PT	MBR4060PT	MBR4080PT	MBR4090PT	MBR40100PT	MBR40150PT	MBR40200PT	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 (See fig.1)	$I_{F(AV)}$	40									A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	350									A	
Maximum Forward Voltage at 20A, per leg	V_F	0.7		0.79			0.8		0.9		V	
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R						0.05				20	mA
Typical Thermal Resistance	$R_{\theta JC}$						1.2				$^\circ\text{C} / \text{W}$	
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150					-65 to +175			$^\circ\text{C}$		

Notes :

Both Bonding and Chip structure are available.

PRELIMINARY



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RATING AND CHARACTERISTIC CURVES

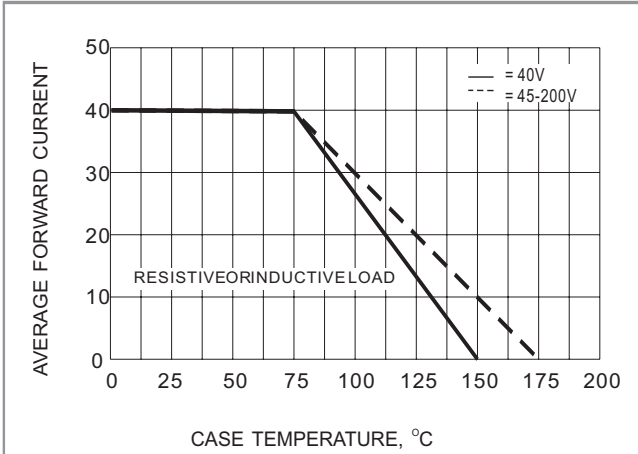


Fig. 1- FORWARD CURRENT DERATING CURVE

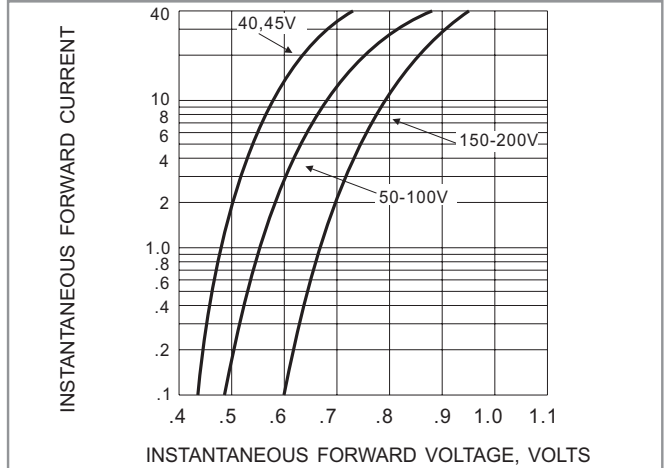


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

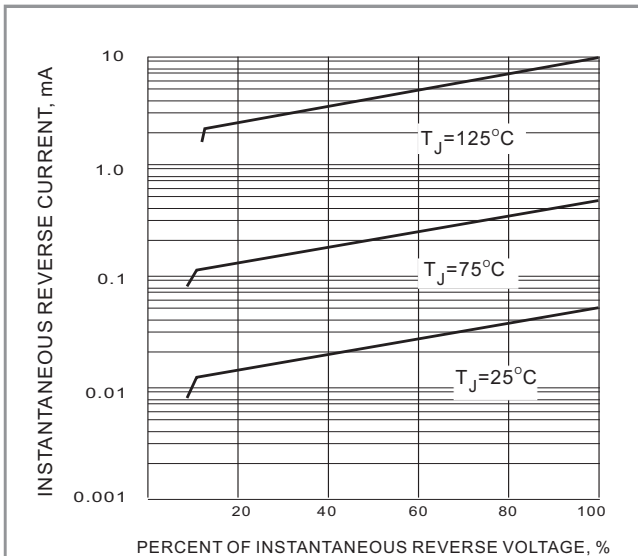


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

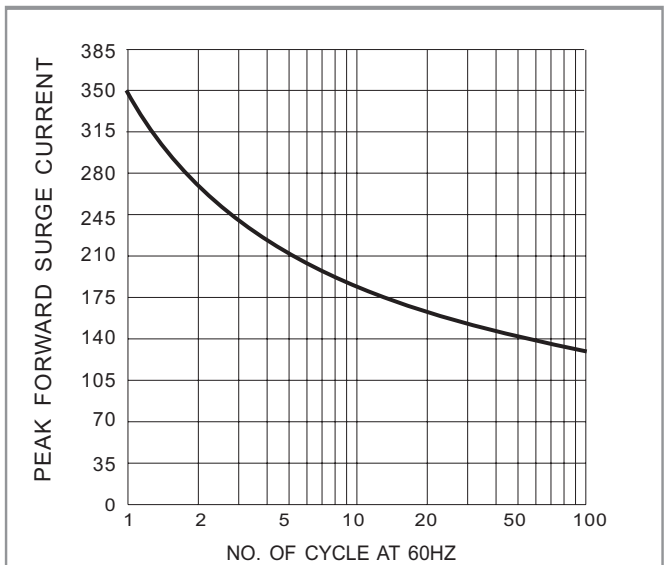


Fig. 4- MAXIMUM NON-REPETITIVE SURGE CURRENT

PRELIMINARY