



MBR6040ST SERIES

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 100 Volts **CURRENT** 60 Amperes

TO-247S / TO-3PS

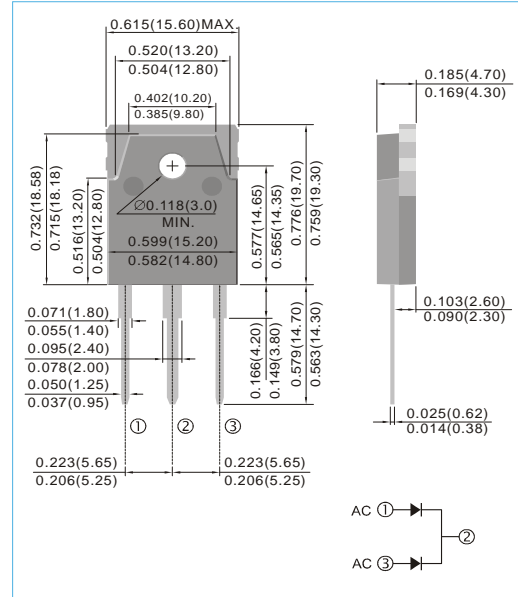
Unit : inch(mm)

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-247S / TO-3PS molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.1932 ounces, 5.4803 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	MBR6040ST	MBR6045ST	MBR6080ST	MBR6090ST	MBR60100ST	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	80	90	100	V
Maximum RMS Voltage	V_{RMS}	28	31.5	56	63	70	V
Maximum DC Blocking Voltage	V_{DC}	40	45	80	90	100	V
Maximum Average Forward Current	$I_{F(AV)}$	60					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400					A
Maximum Forward Voltage at 30A per leg	V_F	0.7		0.8			V
Maximum DC Reverse Current at $T_J=25\text{ }^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100\text{ }^\circ\text{C}$	I_R	0.1 20			0.05 20		mA
Typical Thermal Resistance	$R_{\theta JC}$	1.5					$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	-65 to +175				$^\circ\text{C}$

Note :

Both Bonding and Chip structure are available.



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RATING AND CHARACTERISTIC CURVES

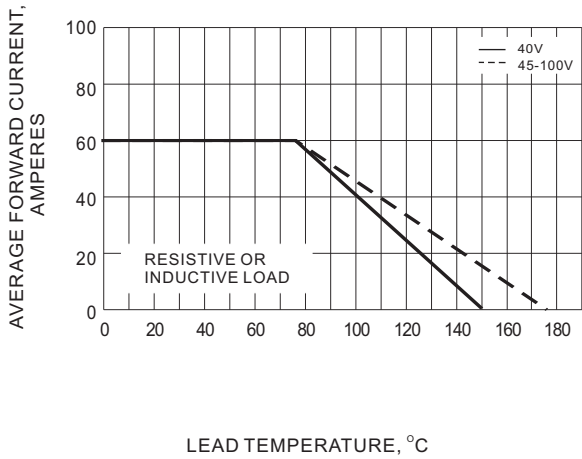


Fig.1- FORWARD CURRENT DERATING CURVE

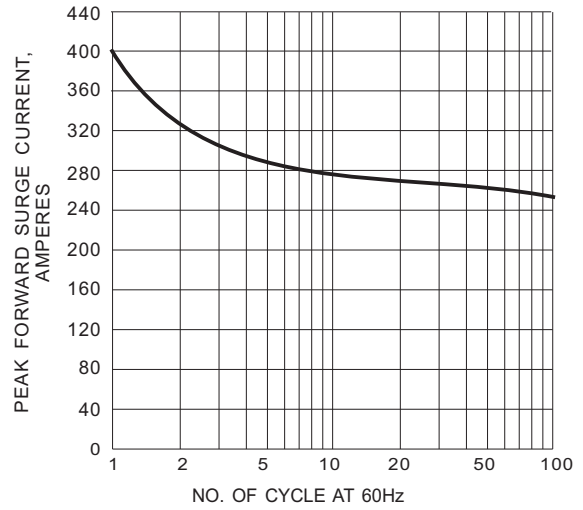


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

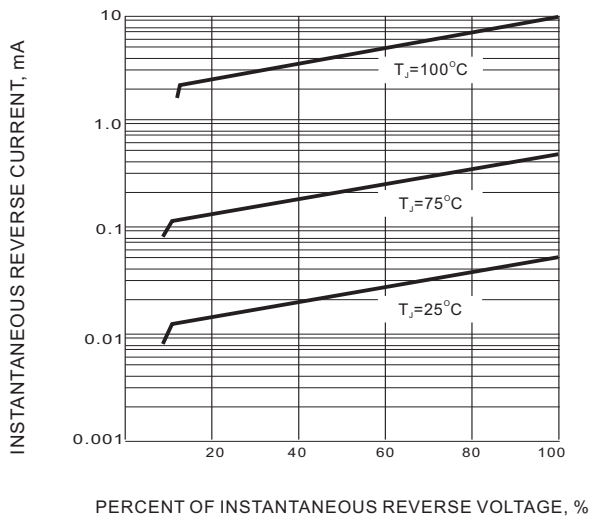


Fig.3- TYPICAL REVERSE CHARACTERISTIC

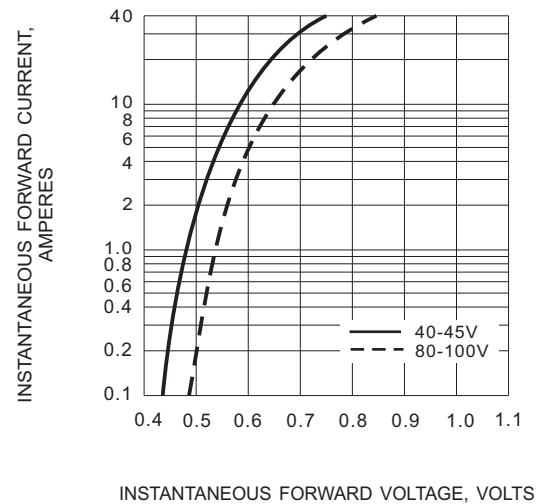


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC