CURRENT 30 Ampere
VOLTAGE RANG 40 to 200 Volts

MBR3040CT THRU MBR30200CT

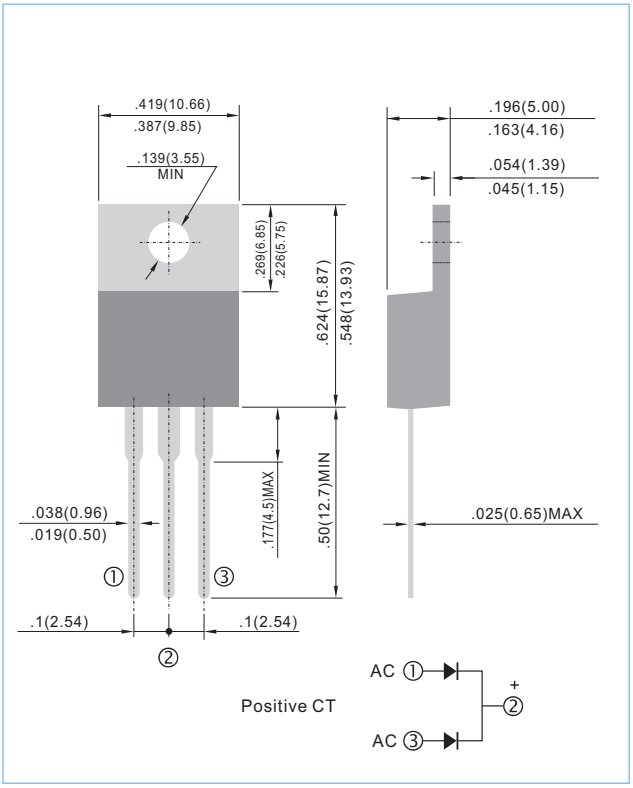
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forwrd voltge, high current capability
- High surge capacity.
- For use in low voltage,high frequency inverters free wheeling , and polarlity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: TO-220AB Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.083 ounces, 2.24grams.

TO-220AB Unit : inch (mm)



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	MBR30 40CT	MBR30 45CT	MBR30 50CT	MBR30 60CT	MBR30 80CT	MBR30 90CT	MBR30 100CT	MBR30 150CT	MBR30 200CT	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 (JEDEC method)	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 T_J=25 °C at Rated DC Blocking Voltage T_J=125°C	I_R	0.1 20						0.05 20			mA
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C / W
Operating Junction and StorageTemperature 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 CHRACTERISTIC CURVES

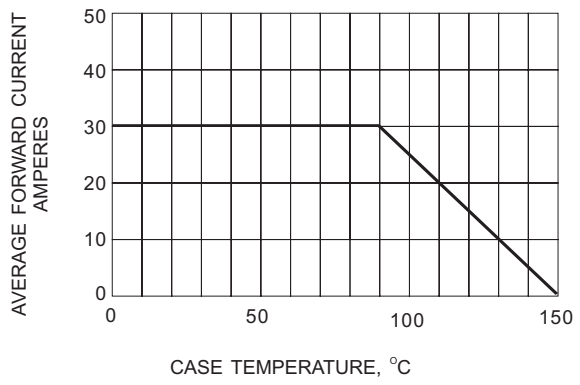

Fig.1- FORWARD CURRENT DERATING CURVE

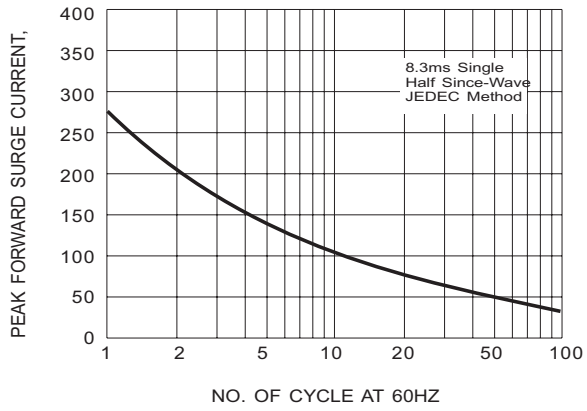

Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

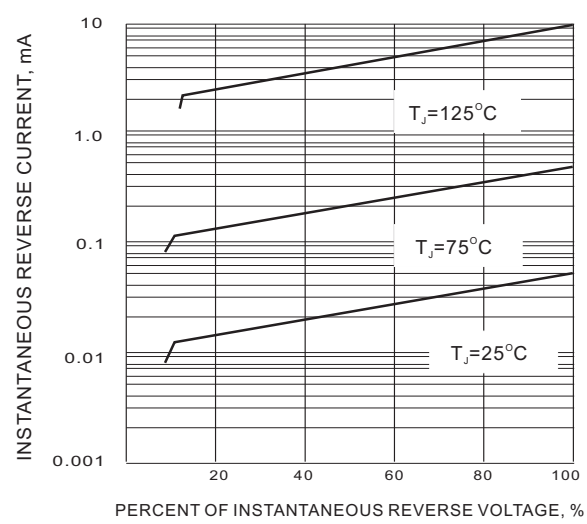

Fig.3- TYPICAL REVERSE CHARACTERISTICS

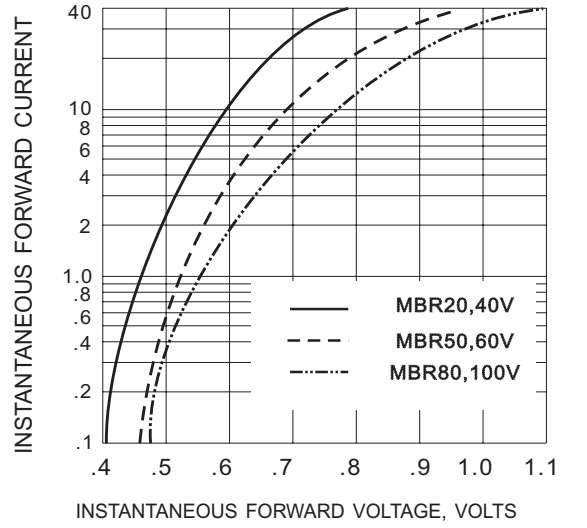

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS