

MBR2040CT thru MBR20200CT
 REVERSE VOLTAGE 40 to 200 Volts
 FORWARD CURRENT 20.0 Amperes

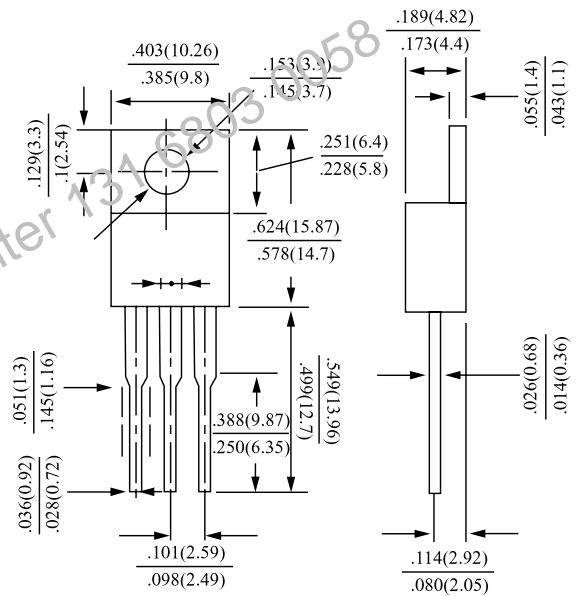
FEATURES

- 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
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: TO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.0655 ounces, 1.859 grams.

TO-220AB



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	MBR2040CT	MBR2045CT	MBR2050CT	MBR2060CT	MBR2080CT	MBR2090CT	MBR20100CT	MBR20150CT	MBR20200CT	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)	$I_{F(AV)}$	20									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150									A
Maximum Forward Voltage at 10A, per leg	V_F	0.75		0.85		0.90			0.95		V
Maximum DC Reverse Current $T_J=25^\circ C$ at Rated DC Blocking Voltage $T_J=125^\circ C$	I_R					0.2					mA
Typical Thermal Resistance	$R_{\theta JC}$					3					$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150				-55 to +175					$^\circ C$

Notes :

Both Bonding and Chip structure are available.



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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

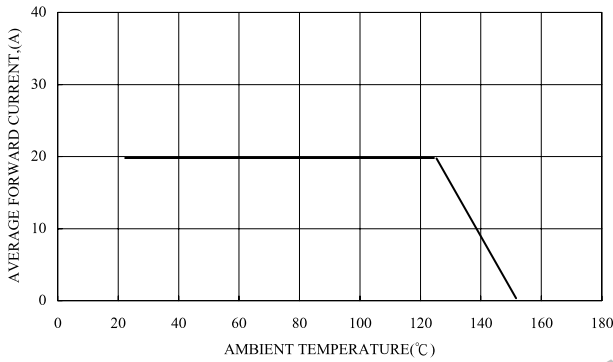


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

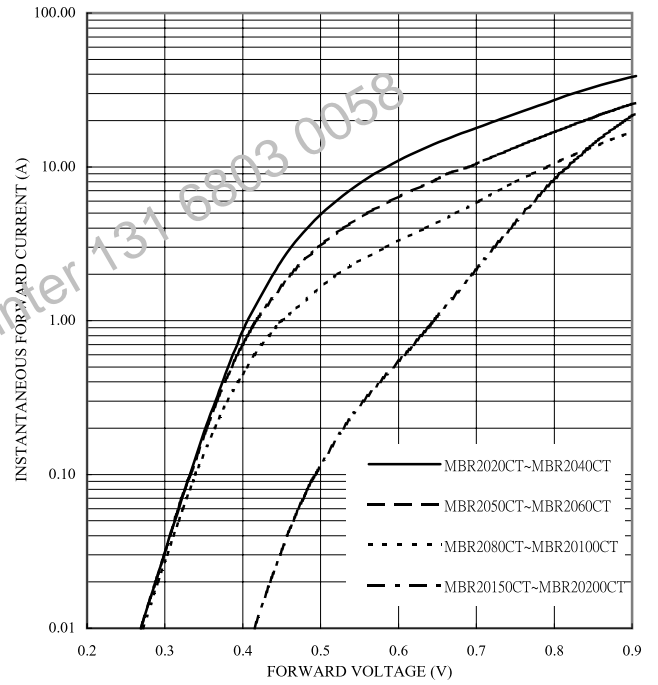


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

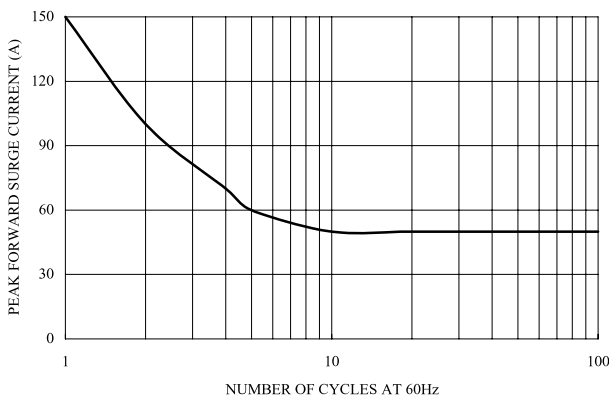


FIG. 5-TYPICAL REVERSE CHARACTERISTICS

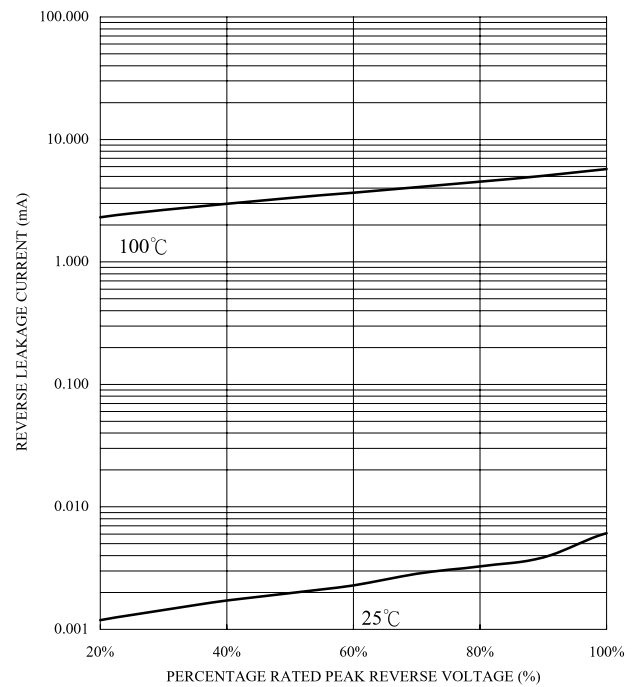


FIG. 4-TYPICAL JUNCTION CAPACITANCE

