MBR1040CT THRU MBR10200CT

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

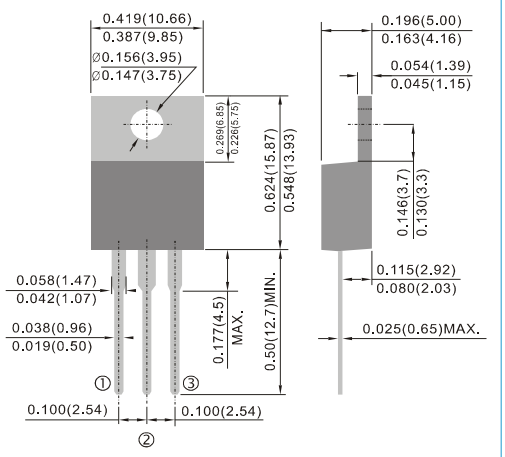
FEATURES

- 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 overvlotage protection
- For use in low voltage, high frequency inverters free wheeling, and polarlity 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, 1.86 grams.

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	MBR1040 CT	MBR1045 CT	MBR1050 CT	MBR1060 CT	MBR1080 CT	MBR1090 CT	MBR10100 CT	MBR10150 CT	MBR10200 CT	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)	$I_{F(AV)}$	10									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 5A, per leg	V_F	0.7		0.75		0.8			0.9		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_J=25°C T_J=125°C	I_R	10 100									μA
Typical Thermal Resistance	$R_{\Theta JC}$	2									°C / W
Operating and Storage Junction Temperature 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 CHARACTERISTIC CURVES

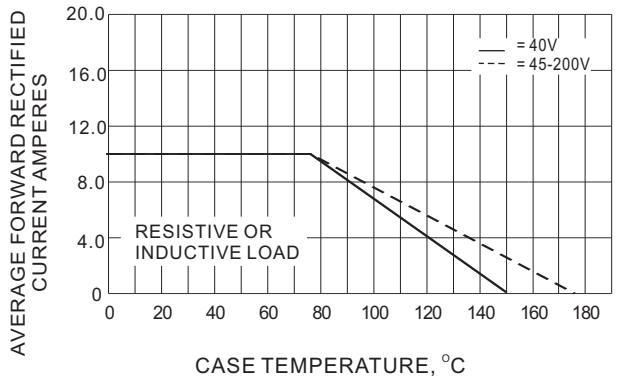

Fig.1- FORWARD CURRENT DERATING CURVE

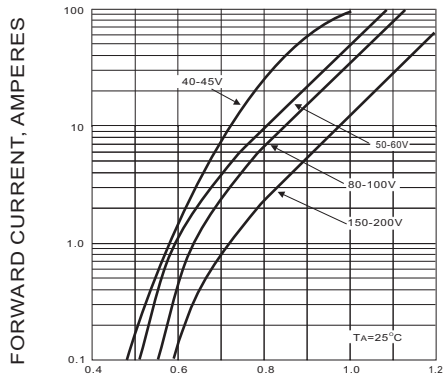

Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

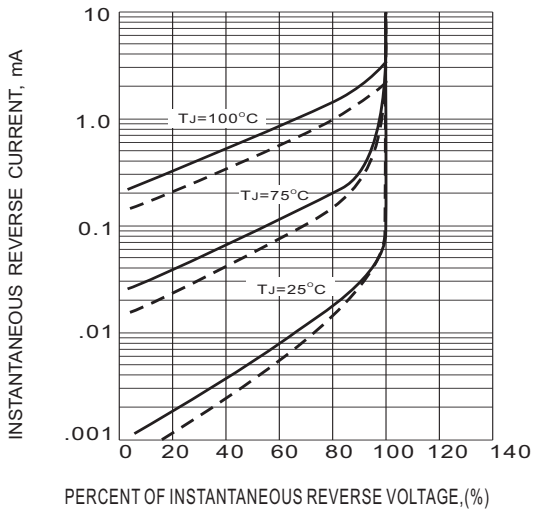

Fig.3- TYPICAL REVERSE CHARACTERISTICS

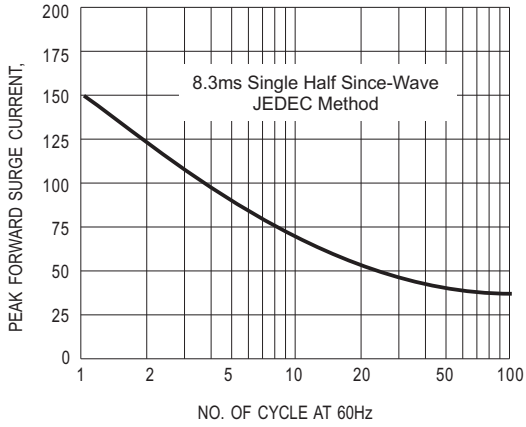

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS