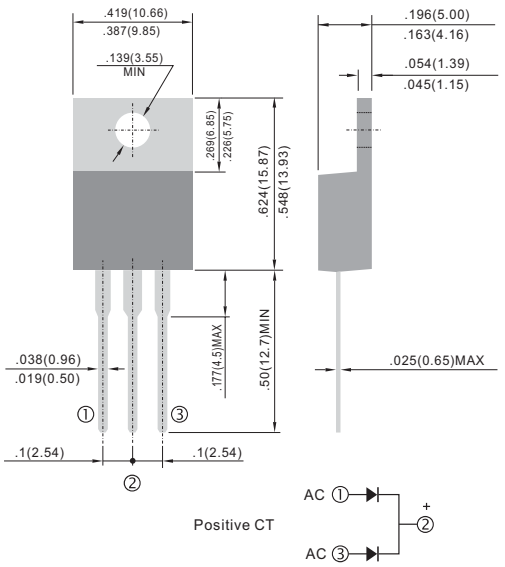
MBR3020CT~MBR30100CT

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 100 Volts **CURRENT** 30.0 Amperes

TO-220AB Unit : inch (mm)



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.

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	MBR3020CT	MBR3030CT	MBR3035CT	MBR3040CT	MBR3045CT	MBR3045CT	MBR3050CT	MBR3060CT	MBR3080CT	MBR30100CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	45	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	24.5	28	31.5	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	45	50	60	80	100	V
Maximum Average Forward Current lead length at T_C=90°C	$I_{F(AV)}$	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	0.55						0.70		0.80		V
Maximum DC Reverse Current T_J=25 °C at Rated DC Blocking Voltage T_J=100°C	I_R	0.1 20										mA
Typical Thermal Resistance	$R_{\theta JC}$	1.5										°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-50 TO + 150										°C

NOTES:

Both Bonding and Chip structure are available.

MBR3020CT~MBR30100CT

RATING AND CHARACTERISTIC CURVES

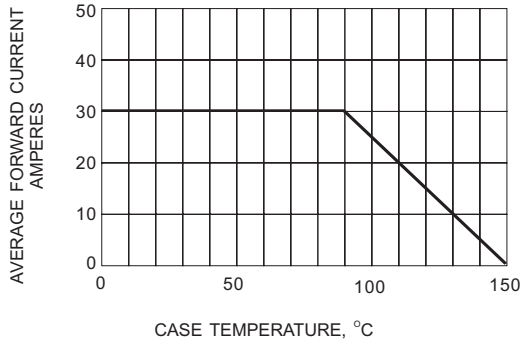


Fig.1- FORWARD CURRENT DERATING CURVE

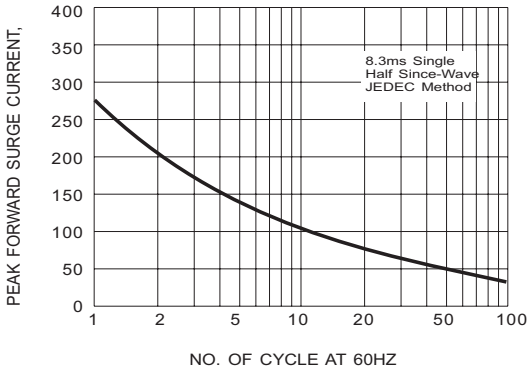


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

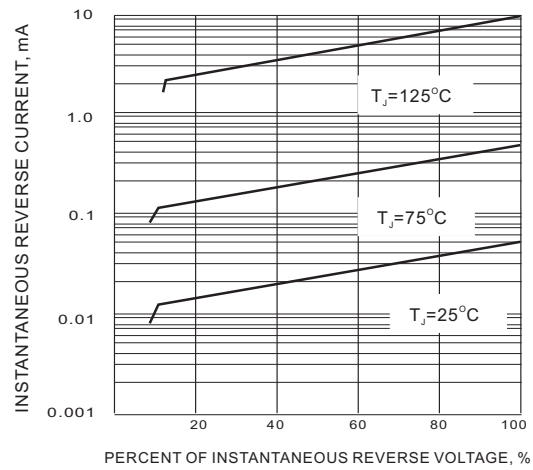


Fig.3- TYPICAL REVERSE CHARACTERISTICS

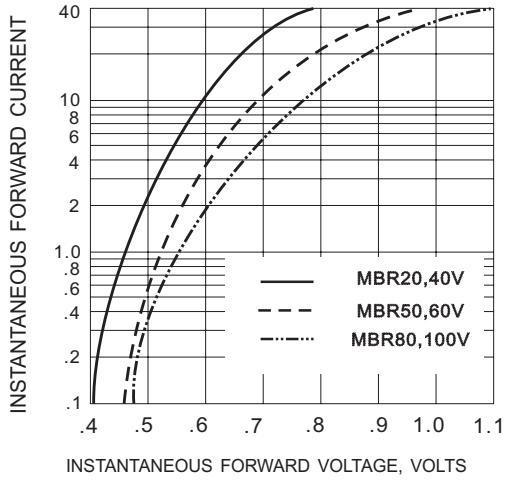


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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