

# MBRF1045CT

## 10 AMPERES SCHOTTKY BARRIER RECTIFIERS

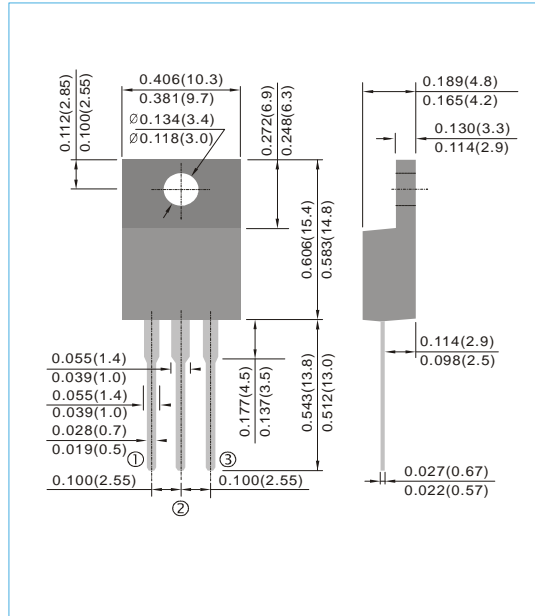
<b>VOLTAGE</b>	<b>45 Volts</b>	<b>CURRENT</b>	<b>10 Amperes</b>	<b>ITO-220 AB</b>	Unit : inch(mm)
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### FEATURES

- 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.
- Lead free in comply with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.055 ounces, 1.5615 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	MBRF1045CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	31.5	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	45	V
Maximum Average Forward Current (See fig.1)	I <sub>F(AV)</sub>	10	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150	A
Maximum Forward Voltage at 5A, per leg	V <sub>F</sub>	0.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>j</sub> =25°C T <sub>j</sub> =125°C	I <sub>R</sub>	0.001 20	μA
Typical Thermal Resistance	R <sub>θJC</sub>	2	°C / W
Operating and Storage Junction Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to + 175	°C

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## RATING AND CHARACTERISTIC CURVES

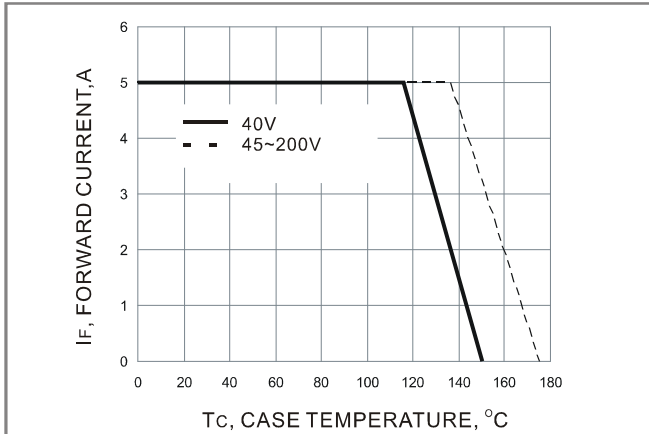


Fig.1- FORWARD CURRENT DERATING CURVE

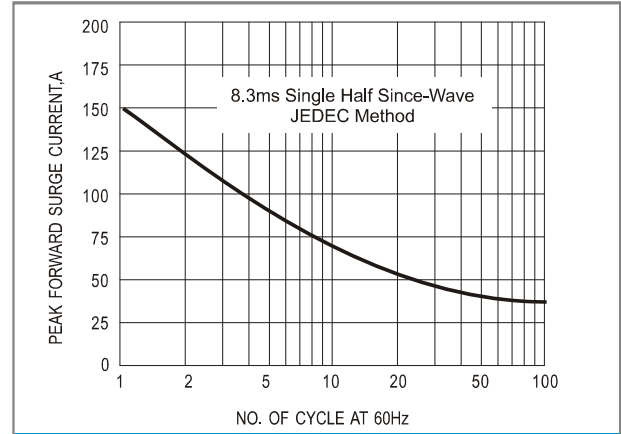


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

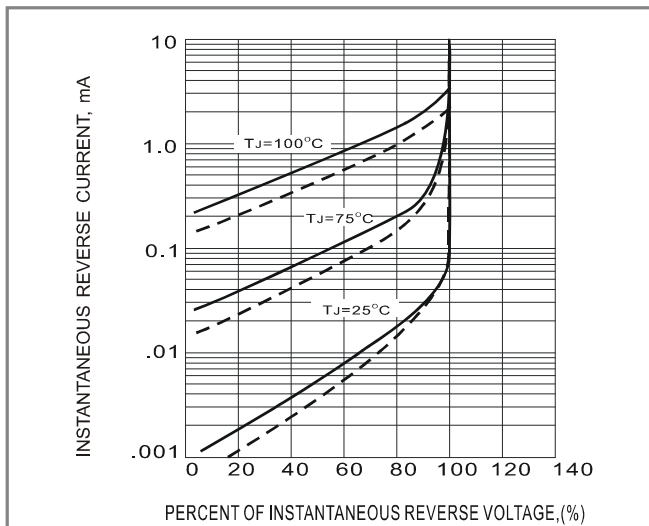


Fig.3- TYPICAL REVERSE CHARACTERISTICS

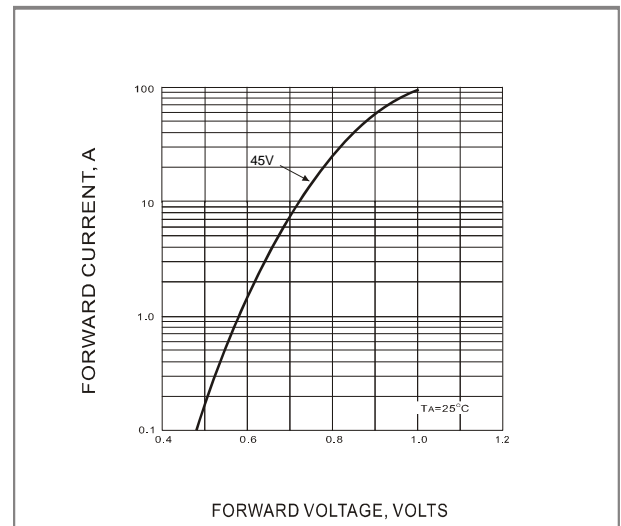


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC