



# MBR1020CT~MBR10100CT

## 10 AMPERES SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 100 Volts    **CURRENT** 10 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
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

### MECHANICAL DATA

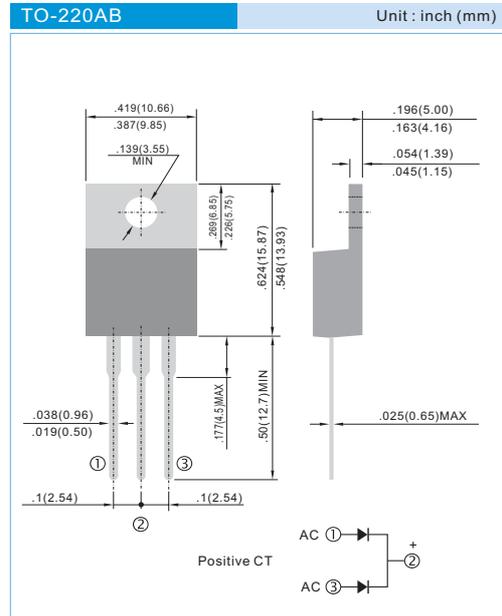
Case: TO-220AB molded plastic

Terminals: solder plated, solderable per MIL-STD-750, Method 2026

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 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	MBR1020CT	MBR1030CT	MBR1040CT	MBR1045CT	MBR1050CT	MBR1060CT	MBR1080CT	MBR10100CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	80	100	V
Maximum Average Forward Current (See fig.1)	I <sub>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>	0.65				0.75		0.8		V
Maximum DC Reverse Current T <sub>c</sub> =25 °C at Rated DC Blocking Voltage T <sub>c</sub> =125°C	I <sub>R</sub>					0.1				mA
						20				
Typical Thermal Resistance	R <sub>θJC</sub>					2				°C / W
Operating Junction Temperature Range	T <sub>J</sub>					-50 TO + 150				°C
Storage Temperature Range	T <sub>STG</sub>					-50 TO + 175				°C

Notes :

Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

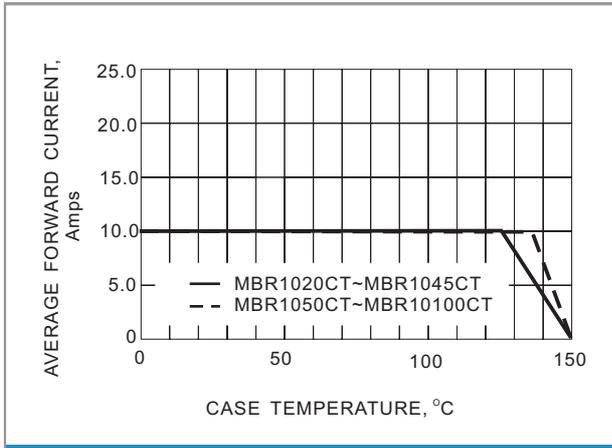


Fig. 1- FORWARD CURRENT DERATING CURVE

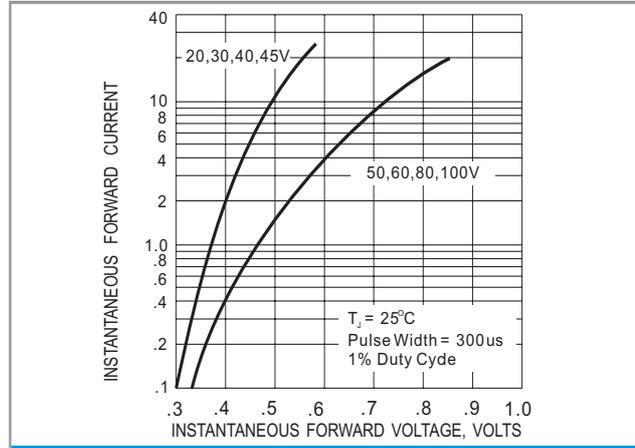


Fig. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

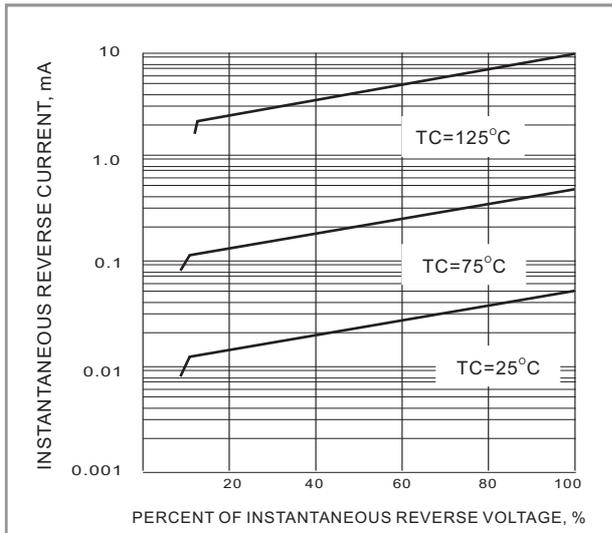


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

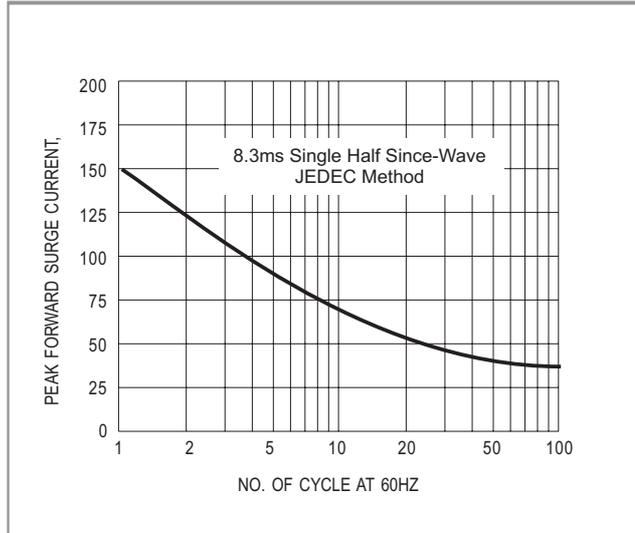


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS