

MBR1040CT~MBR10200CT

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

DRAWING

Voltage	40 to 200 Volts	Current	10 Amperes
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Features

- ◆ Plastic package has underwriters laboratory flammability classification 94v-0. Flame retardant epoxy molding compound.
- ◆ Metal silicon junction, majority carrier condition.
- ◆ Low power loss, high efficiency.
- ◆ High current capability
- ◆ Guarding for overvoltage protection
- ◆ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- ◆ In compliance with EU ROHS 2002/95/EC directives.
- ◆ Case:TO-220C



Maximum ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

PARAMETER	Symb ol	MBR	MBR	MBR	MBR	MBR	MBR	MBR	Units
		1040CT	1045CT	1050CT	1060CT	10100CT	10150CT	10200CT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	40	45	50	60	100	150	200	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	100	150	200	V
Maximum Average Forward Current	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>	100							A
Maximum Forward Voltage at 5A,per leg	V <sub>F</sub>	0.7				0.9		1.0	V
Macimum DC Reverse Current T <sub>J</sub> =25°C at Rated DC Blocking Voltage T <sub>J</sub> =125°C	I <sub>R</sub>	0.1				20			mA
Typical Thermal Resistance	R <sub>θjc</sub>	2							°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>ST</sub> G	-50 to +150	-40 to +175						°C

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

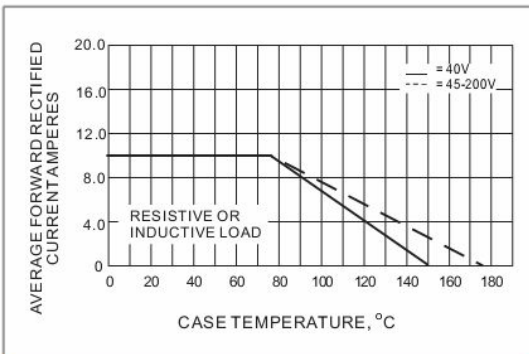


Fig.1- FORWARD CURRENT DERATING CURVE

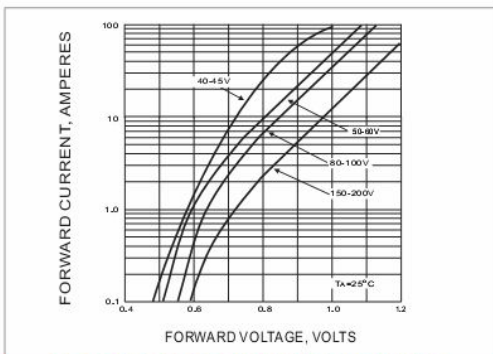


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

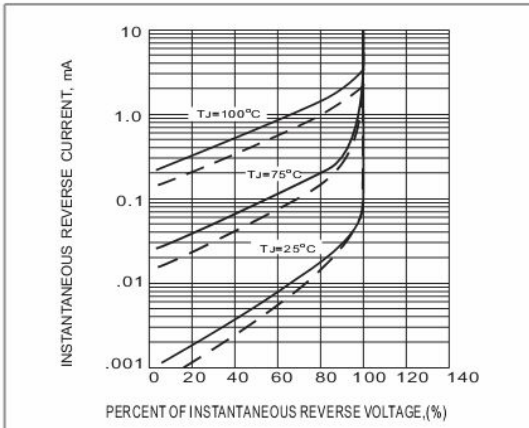


Fig.3- TYPICAL REVERSE CHARACTERISTICS

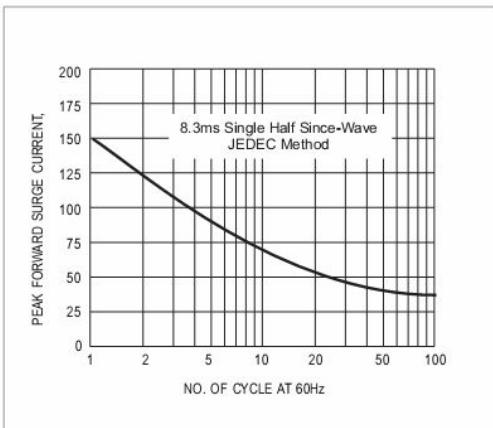


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

