

MBR4040CT~MBR40200CT

40 AMPERES SCHOTTKY BARRIER RECTIFIERS

| | | | |
|---------|-----------------|---------|------------|
| Voltage | 40 to 200 Volts | Current | 40 Amperes |
|---------|-----------------|---------|------------|

DRAWING



Features

- ◆ Plastic package has underwriters laboratory Flammability classification 94v-O. Flame retardant epoxy molding compound.
- ◆ Metal silicon junction, majority carrier condition.
- ◆ Low power loss, high efficiency.
- ◆ High current capability
- ◆ Guarding for over voltage 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 4040CT | MBR 4045CT | MBR 4050CT | MBR 4060CT | MBR 40100CT | MBR 40150CT | MBR 40200CT | Units | |
|----------------------------------------------------------------------------------------------------|--------------------------------------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|-------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 40 | 45 | 50 | 60 | 100 | 150 | 200 | V | |
| Maximum RMS Voltage | V _{RMS} | 40 | 45 | 50 | 60 | 100 | 150 | 200 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 40 | 45 | 50 | 60 | 100 | 150 | 200 | V | |
| Maximum Average Forward Current | I _{F(AV)} | 40 | | | | | | | A | |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 250 | | | | | | | A | |
| Maximum Forward Voltage at 20A,per leg | V _F | 0.7 | 0.75 | | 1.2 | | 1.0 | V | | |
| Maximum DC Reverse Current T _J =25°C at Rated DC Blocking Voltage T _J =125°C | I _R | 0.1 | | | | | | | 50 | mA |
| Typical Thermal Resistance | R _{θjc} | 1.2 | | | | | | | °C/W | |
| Operating Junction and Storage Temperature Range | T _J ,T _{ST} G | -50 to +150 | -65 to +175 | | | | | | °C | |

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

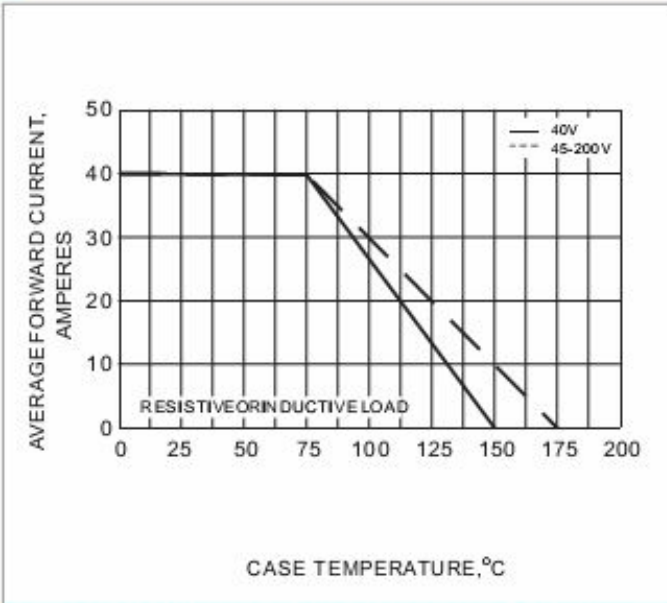


Fig. 1-FORWARD CURRENT DERATING CURVE

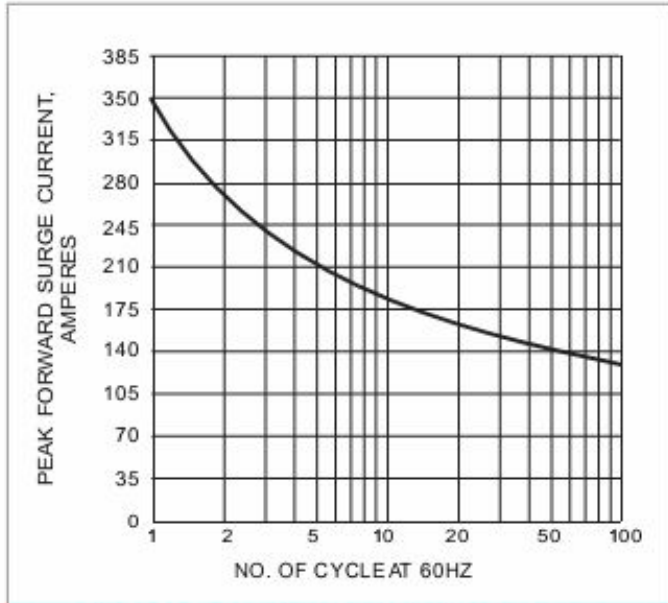


Fig. 2-MAXMUM NON-REPETITIVE SURGE CURRENT

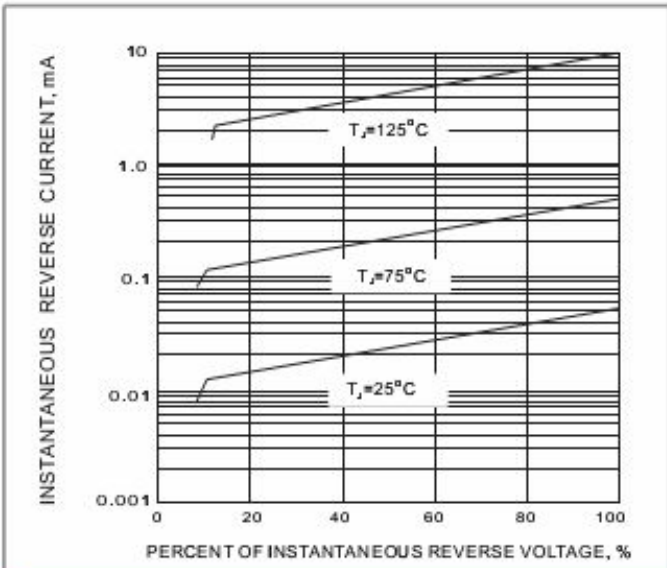


Fig. 3-TYPICAL REVERSE CHARACTERISTIC

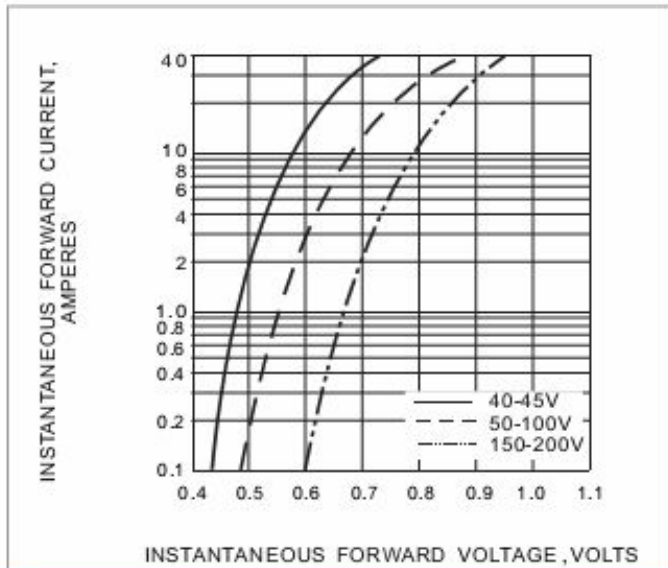


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Mechanical Dimensions

