

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20 to 100** Volts
FORWARD CURRENT - **40.0** Amperes

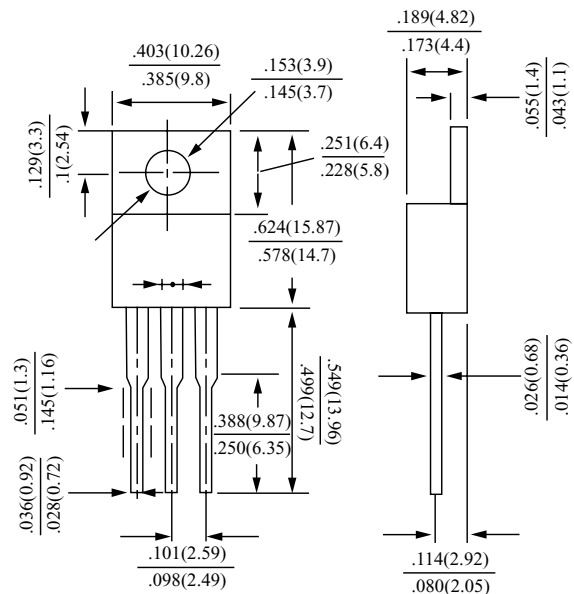
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : Color band denotes cathode
- Weight : 1.948 grams
- Mounting position : Any

TO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | MBR 4020CT | MBR 4040CT | MBR 4050CT | MBR 4060CT | MBR 40100CT | UNIT | |
|--|--------|--------------|------------|--------------|------------|--------------|------|----|
| Maximum repetitive peak reverse voltage | VRRM | 20 | 40 | 50 | 60 | 100 | V | |
| Maximum RMS voltage | VRMS | 14 | 28 | 35 | 42 | 70 | V | |
| Maximum DC blocking voltage | VDC | 20 | 40 | 50 | 60 | 100 | V | |
| Maximum average forward rectified current Per leg | IF | 40 20 | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | IFSM | 250.0 | | | | | | A |
| Maximum instantaneous @25 @125 | VF | 0.62 0.57 | | 0.73 0.62 | | 0.87 0.77 | V | |
| Maximum DC Reverse Current @25 at Rated DC Blocking Voltage @125 | IR | 0.3 50.0 | | | | | | mA |
| Typical Junction Capacitance | CJ | 900 | | 700 | | 550 | pF | |
| Typical Thermal Resistance | R JC | 3.0 | | | | | | /W |
| Operating Temperature Range | TJ | -55 to +175 | | | | | | |
| Storage Temperature Range | TSTG | -55 to +175 | | | | | | |

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

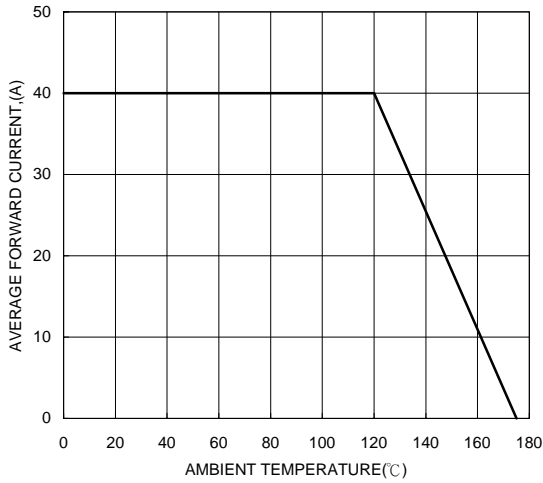


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

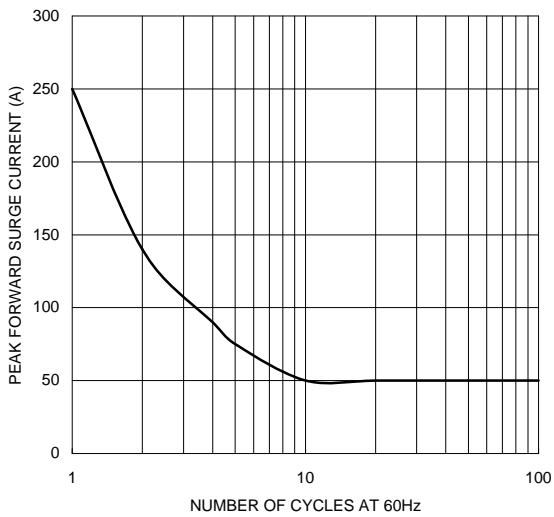


FIG. 5-TYPICAL JUNCTION CAPACITANCE

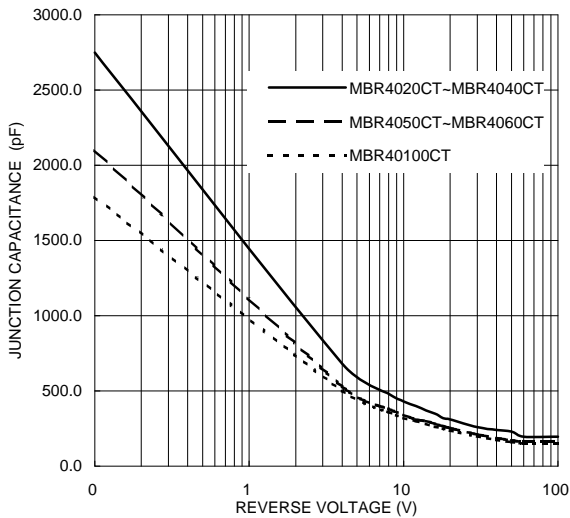


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

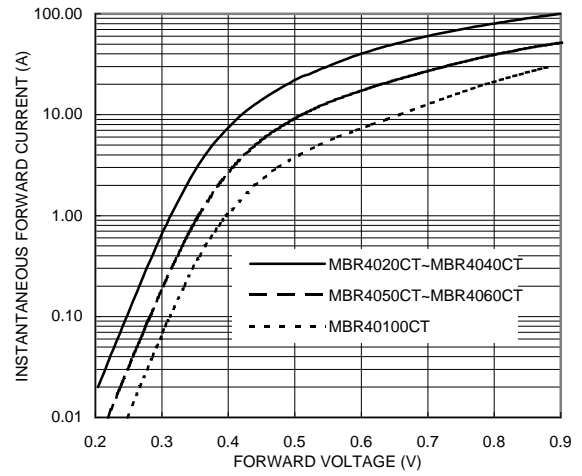


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

