

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 70 to 100 Volts
FORWARD CURRENT - 16 Amperes

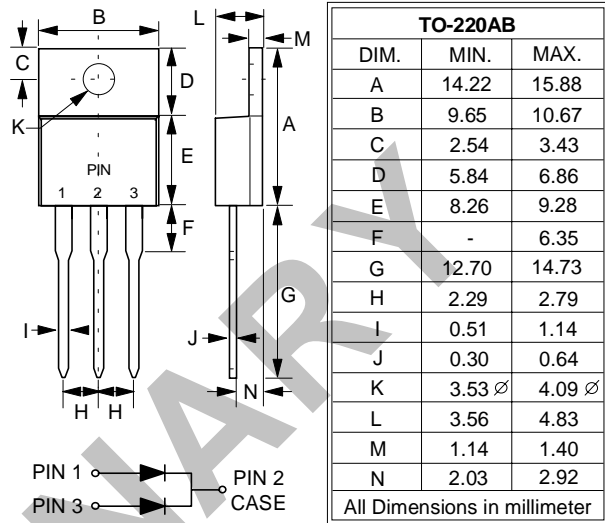
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 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%

| CHARACTERISTICS | SYMBOL | MBR1670CT | MBR1680CT | MBR1690CT | MBR16100CT | UNIT |
|--|--------|--|-----------|-----------|------------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 70 | 80 | 90 | 100 | V |
| Maximum RMS Voltage | VRMS | 49 | 56 | 63 | 70 | V |
| Maximum DC Blocking Voltage | VDC | 70 | 80 | 90 | 100 | V |
| Maximum Average Forward Rectified Current at TC=100°C (See Fig.1) | I(AV) | 16 | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD) | IFSM | 125 | | | | A |
| Voltage Rate of Change (Rated VR) | dv/dt | 10000 | | | | V/us |
| Maximum Forward Voltage, (Note 1) | VF | @IF=8A TJ=25°C 0.85 @IF=8A TJ=125°C 0.75 @IF=16A TJ=25°C 0.95 @IF=16A TJ=125°C 0.85 | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | IR | @TJ=25°C 0.1 @TJ=125°C 100 | | | | mA |
| Typical Junction Capacitance, per element (Note 2) | CJ | 275 | | | | pF |
| Typical Thermal Resistance (Note 3) | RθJC | 2.0 | | | | °C/W |
| Operating Temperature Range | TJ | -55 to +150 | | | | °C |
| Storage Temperature Range | TSTG | -55 to +175 | | | | °C |

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal Resistance Junction to Case.

