

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 30 to 60 Volts
FORWARD CURRENT - 30 Amperes

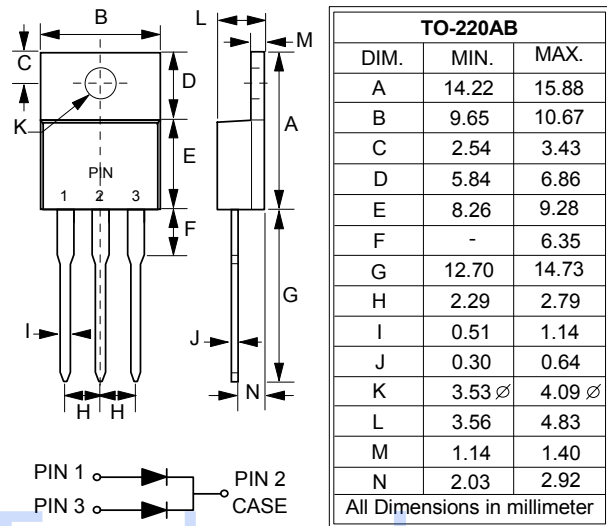
FEATURES

- 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-wheeling, 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
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

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 | MBR 2530CT | MBR 2535CT | MBR 2540CT | MBR 2545CT | MBR 2550CT | MBR 2560CT | UNIT |
|---|--------|--|------------------------|------------|------------|------------|------------------------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | VRMS | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Maximum DC Blocking Voltage | VDC | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum Average Forward Rectified Current @Tc=130°C | I(AV) | 30 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | IFSM | 150 | | | | | | A |
| Maximum forward Voltage (per leg) at (Note 1) | VF | IF = 15A, @Tj=25°C IF = 15A, @Tj=125°C IF = 30A, @Tj=25°C IF = 30A, @Tj=125°C | - - 0.82 0.73 | | | | 0.75 0.65 - - | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | IR | @Tj=25°C @Tj=125°C | 0.2 40.0 | | | | 1.0 50.0 | mA |
| Voltage rate of change (Rated VR) | dv/dt | 10,000 | | | | | | V/us |
| Typical Junction Capacitance per element (Note 2) | Cj | 450 | | | | | | pF |
| Typical Thermal Resistance (Note 3) | RθJC | 1.5 | | | | | | °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.

