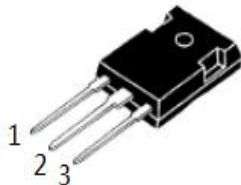


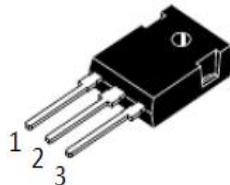


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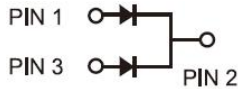
SCHOTTKY BARRIER RECTIFIER



TO-247/PT



TO-247S/PTS



FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection



APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

Primary Characteristic

| | |
|---------------|-------|
| I_O | 2*20A |
| V_{RRM} | 200V |
| I_{FSM} | 450A |
| V_F | 0.73V |
| $T_{j,max}$ | 150°C |
| Assembly code | XX |

MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

| Characteristics | Symbol | Value | Unit |
|---|-----------------|-------------|------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 200 | V |
| Working Peak Reverse Voltage | V_{RWM} | 200 | V |
| Maximum DC Blocking Voltage | V_{DC} | 200 | V |
| Maximum Average Forward Rectified Current | Per Leg | 20 | A |
| | Total | 40 | |
| Peak Forward Surge Current,8.3 ms Single Half Sine-wave | I_{FSM} | 450 | A |
| Operating Temperature Range | T_J | 150 | °C |
| Storage Temperature Range | T_{STG} | -40 to +150 | °C |
| Typical Thermal Resistance (Note1) | $R_{\theta JC}$ | 2 | °C/W |

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

| Characteristics | Symbol | Value | | Unit | | |
|--|--------|--------------|----------|------|----|------|
| | | Typ. | Max. | | | |
| Forward Voltage Drop(Note2) at $I_F=5A$ | V_F | TA=25°C | 0.73 | - | V | |
| | | TA=125°C | 0.58 | - | | |
| | | at $I_F=10A$ | TA=25°C | 0.79 | | - |
| | | | TA=125°C | 0.65 | | - |
| | | at $I_F=20A$ | TA=25°C | 0.86 | | 0.89 |
| | | | TA=125°C | 0.73 | | - |
| Maximum Reverse Current at $V_R=200V$ | I_R | TA=25°C | 2 | 10 | µA | |
| | | TA=125°C | 2 | - | mA | |

Note2:Pulse test: 300 µs pulse width, 1 % duty cycle



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RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

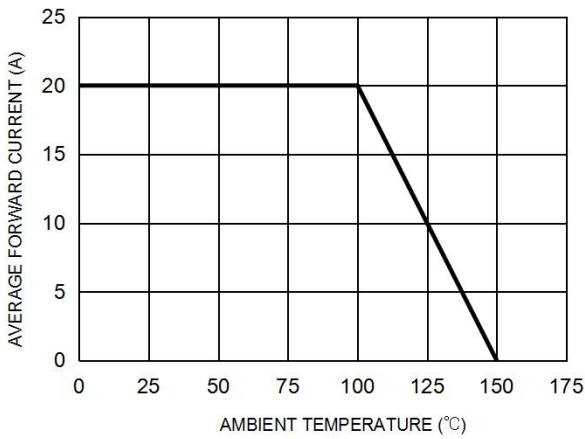


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

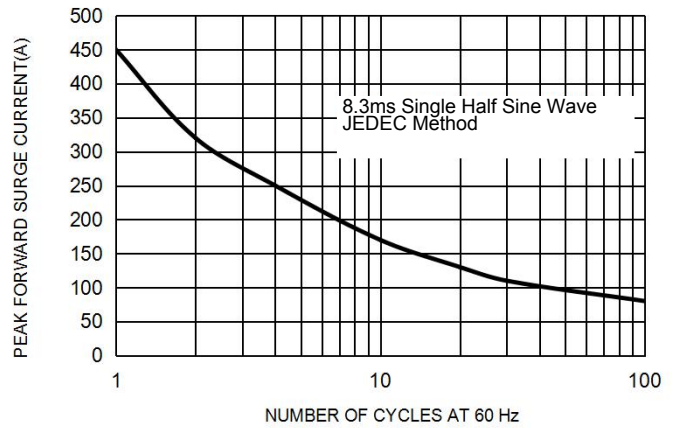


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

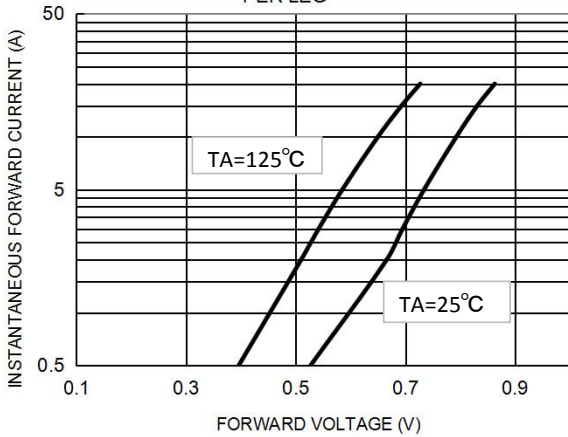
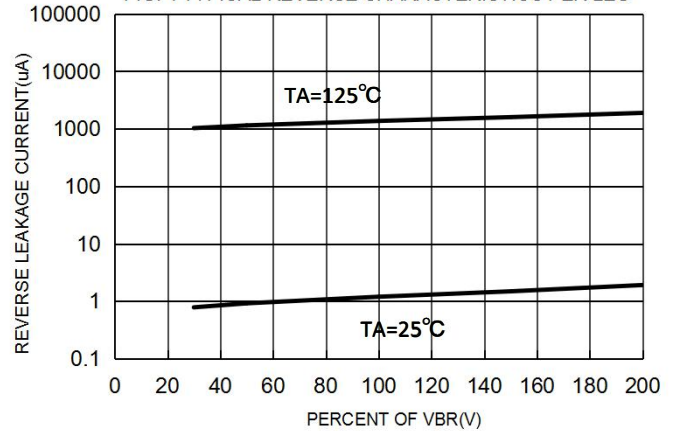
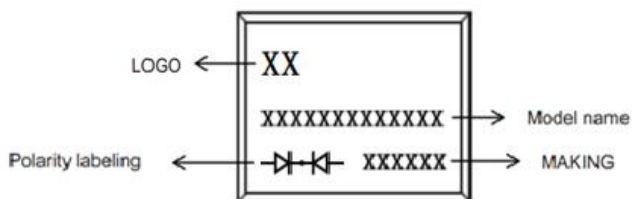


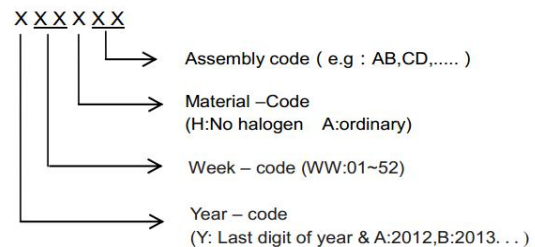
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:



Ordering information

| Part Number | Package | Unit Weight | Base Quantity | Delivery mode |
|-------------|---------|----------------|---------------|---------------------------|
| MBR40200PT | TO-247 | 0.209oz(5.93g) | 30 pcs / tube | 600pcs/box 2400pcs/carton |
| MBR40200PTS | TO-247S | 0.158oz(4.48g) | 30 pcs / tube | 600pcs/box 2400pcs/carton |

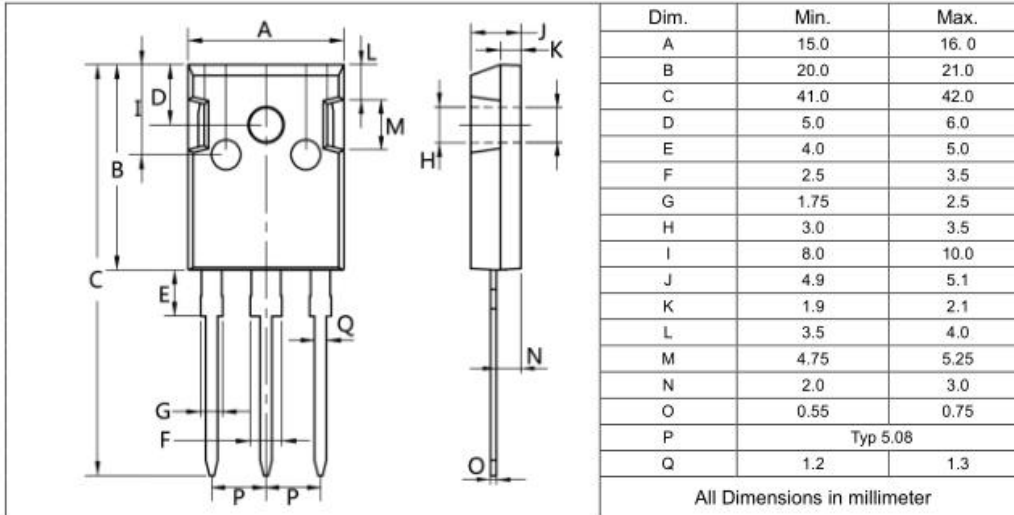
Note: For Halogen Free molding compound, add "H" suffix to part number above.



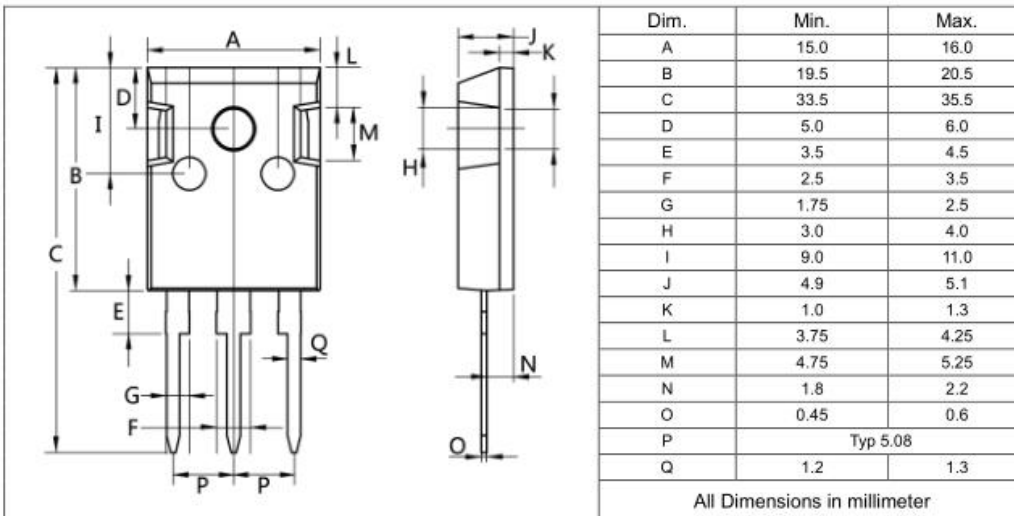
MBR40200PT/PTS

Package Outline Dimensions millimeters

TO-247



TO-247S



Notice

1. All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.
2. Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
3. LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.