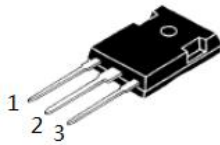
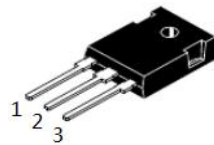




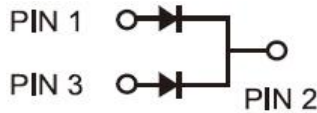
## SCHOTTKY BARRIER RECTIFIER



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



RoHS  
COMPLIANT

## 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 |
| $V_{RRM}$     | 100V  |
| $I_{FSM}$     | 450A  |
| $V_F$         | 0.66V |
| $T_{j,max}$   | 150°C |
| Assembly code | CO    |

## 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   | $V_{RRM}$         | 100         | V    |
| Working Peak Reverse Voltage  | $V_{RWM}$         | 100         | V    |
| Maximum DC Blocking Voltage   | $V_{DC}$          | 100         | V    |
| Maximum Average Forward Rectified Current   | $I_O$             | Per Leg     | 20   |
|   |                   | Total       | 40   |
| Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$         | 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)           | $V_F$  | at $I_F=5A$  | TA=25°C  | 0.64 | -    |
|                                       |        |              | TA=125°C | 0.52 | -    |
|                                       |        | at $I_F=10A$ | TA=25°C  | 0.72 | -    |
|                                       |        |              | TA=125°C | 0.59 | -    |
|                                       |        | at $I_F=20A$ | TA=25°C  | 0.79 | 0.85 |
|                                       |        |              | TA=125°C | 0.66 | -    |
| Maximum Reverse Current at $V_R=100V$ | $I_R$  | TA=25°C      | 4        | 10   |      |
|                                       |        | TA=125°C     | 3        | -    |      |

Note2:Pulse test: 300  $\mu$ s pulse width, 1 % duty cycle



## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

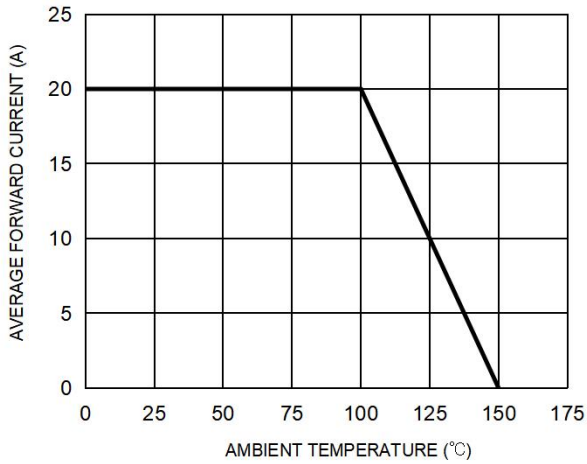


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

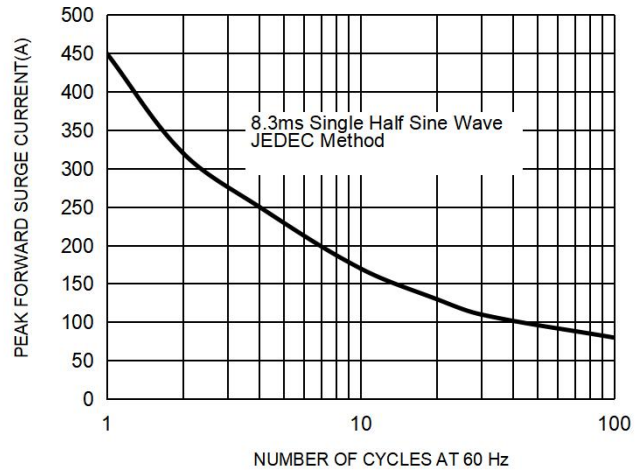


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

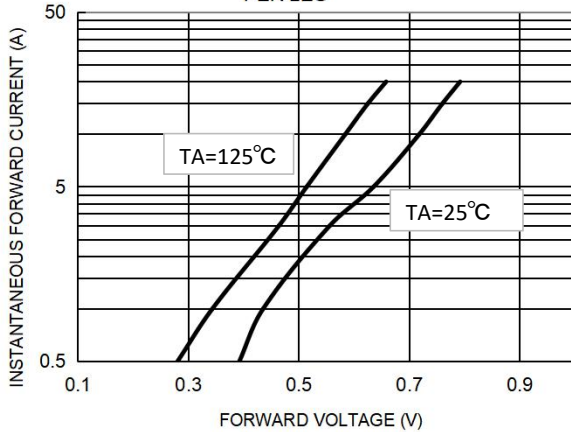
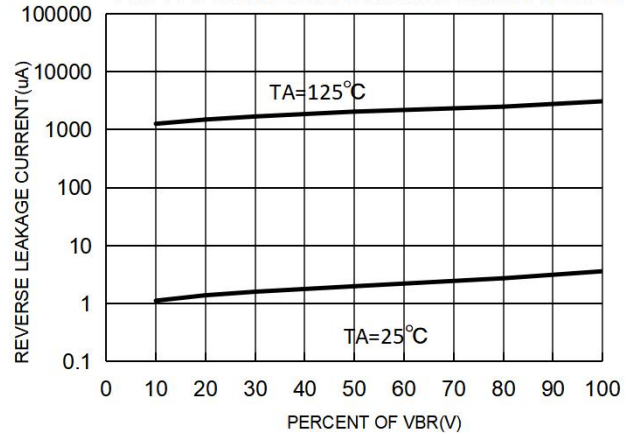


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

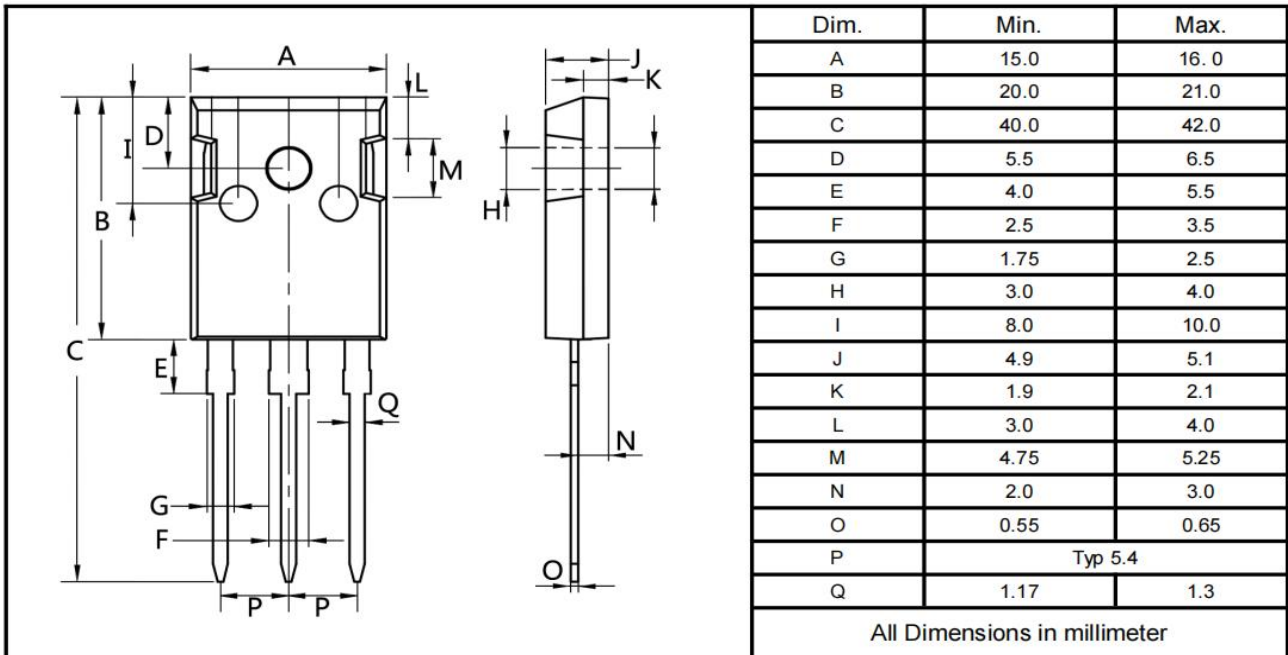




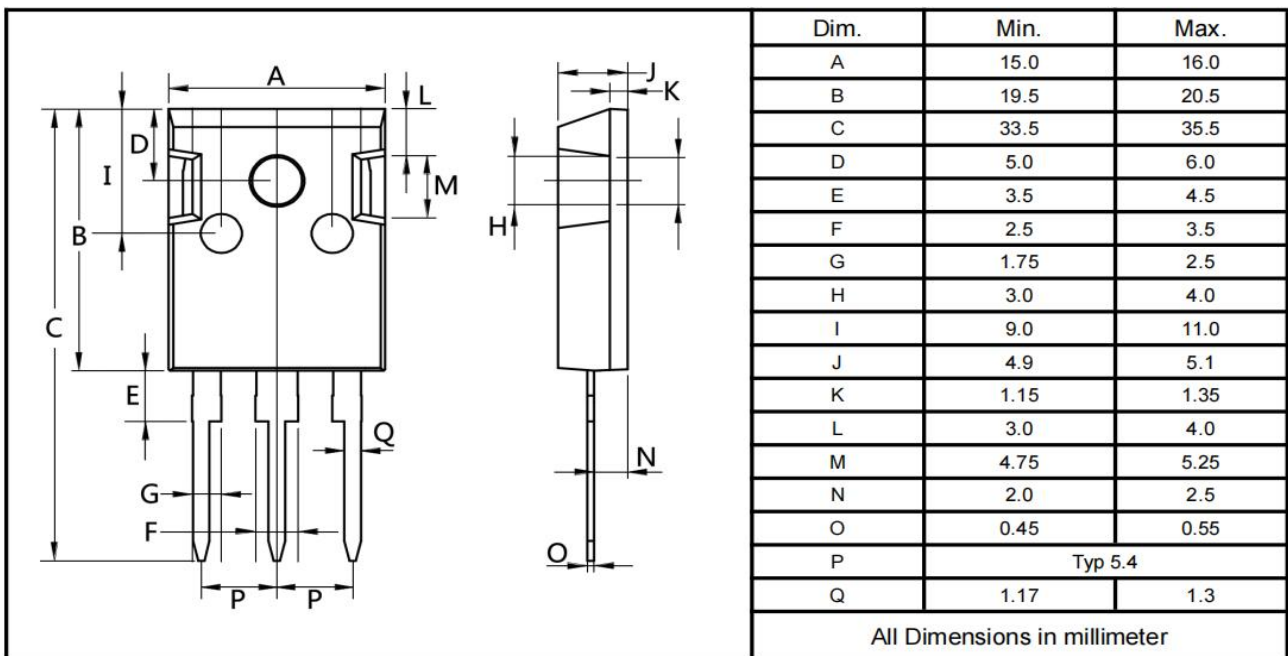
# MBR40100PT/PTS-B

## Package Outline Dimensions millimeters

### TO-247

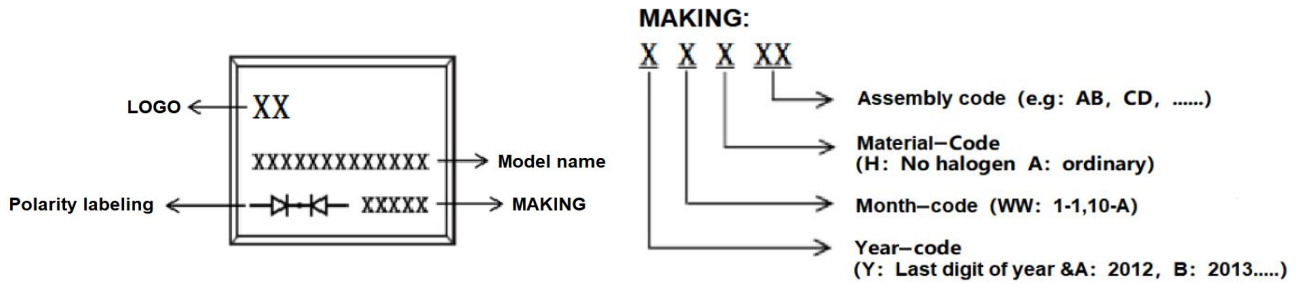


### TO-247S





## Marking on the body

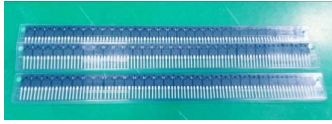
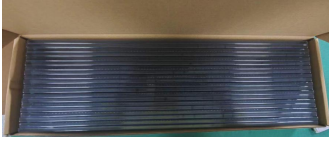



## Ordering information

| Part Number   | Package | Unit Weight    | Base Quantity | Delivery mode             |
|---------------|---------|----------------|---------------|---------------------------|
| MBR40100PT-B  | TO-247  | 0.209oz(5.93g) | 30 pcs / tube | 600pcs/box 3000pcs/carton |
| MBR40100PTS-B | TO-247S | 0.158oz(4.48g) | 30 pcs / tube | 600pcs/box 3000pcs/carton |

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

## packing instruction

| PKG               | 最小包装  | 内盒   | 外箱  |
|-------------------|---|--|---|
| TO-247<br>TO-247S |  |  |  |
|                   | 30PCS/管   | 600pcs/盒   | 3000pcs/箱   |

## Notice

- All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.
- 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.
- LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.