



Extrtreme Low VF Schottky Barrier Rectifiers
Reverse Voltage - 100 Volts
Forward Current - 40 Amperes

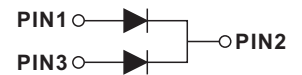
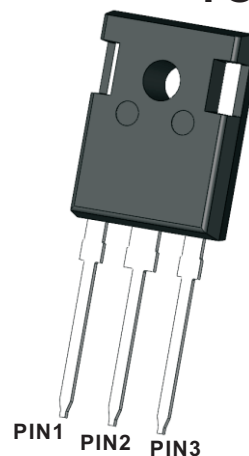
TO-247-3L

Features

- High current capability
- High surge capability
- Super low forward voltage drop
- Reliable high temperature operation
- Softest, fast switching capability
- Lead free finish, rohs compliant

Mechanical data

- Case: TO-247-3L
- Approx Weight: 6.3g (0.22oz)
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".



Packing Marking And Ordering Information

| Device Package | Device | Marking | Packing Type | QTY Per Tube | Inner box | Per Carton |
|----------------|-------------|-------------|--------------|--------------|-----------|------------|
| TO-247-3L | MBRT40100WD | MBRT40100WD | Tube | 30 Pcs | 600 Pcs | 1,200 Pcs |

Maximum Ratings And Electrical Characteristics

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

| Parameter | Symbols | MBRT40100WD | Units |
|---|-----------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 100 | V |
| Maximum RMS voltage | V_{RMS} | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 100 | V |
| Average Rectified Forward Current Per leg Per device | I_F | 20 40 | A |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg) | I_{FSM} | 320 | A |
| Operating Junction Temperature Range | T_j | -55 ~ +150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | °C |

| Parameter | Symbols | Test Conditions | Min | Typ | Max | Units |
|---------------------------------------|----------|--|-----|--------------|--------------|-------|
| Breakdown voltage per leg | V_{BR} | $I_R=0.1mA$ | 100 | | | V |
| Instantaneous forward voltage per leg | V_F | $I_F=20A, T_J=25^\circ C$ $I_F=40A, T_J=25^\circ C$ | | 0.66 0.89 | 0.73 0.95 | V |
| Reverse current per leg | I_R | $V_R=100, T_J=25^\circ C$ | | | 0.1 | mA |



Fig.1 Typical Forward Current Derating Curve

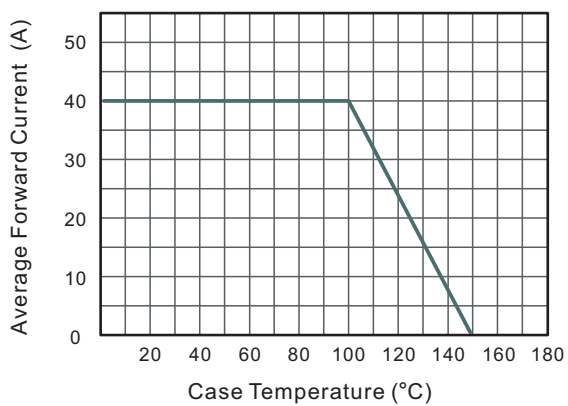


Fig.2 Typical Reverse Characteristics

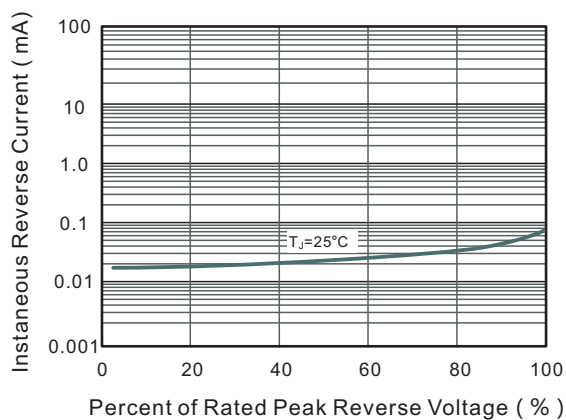


Fig.3 Typical Forward Characteristic(per leg)

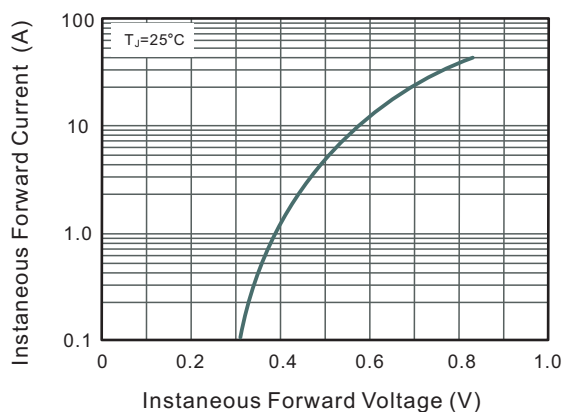
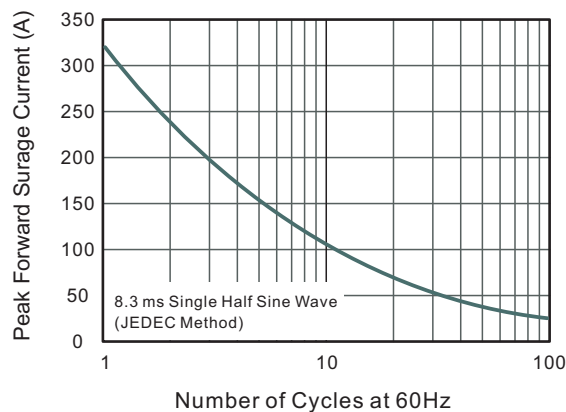


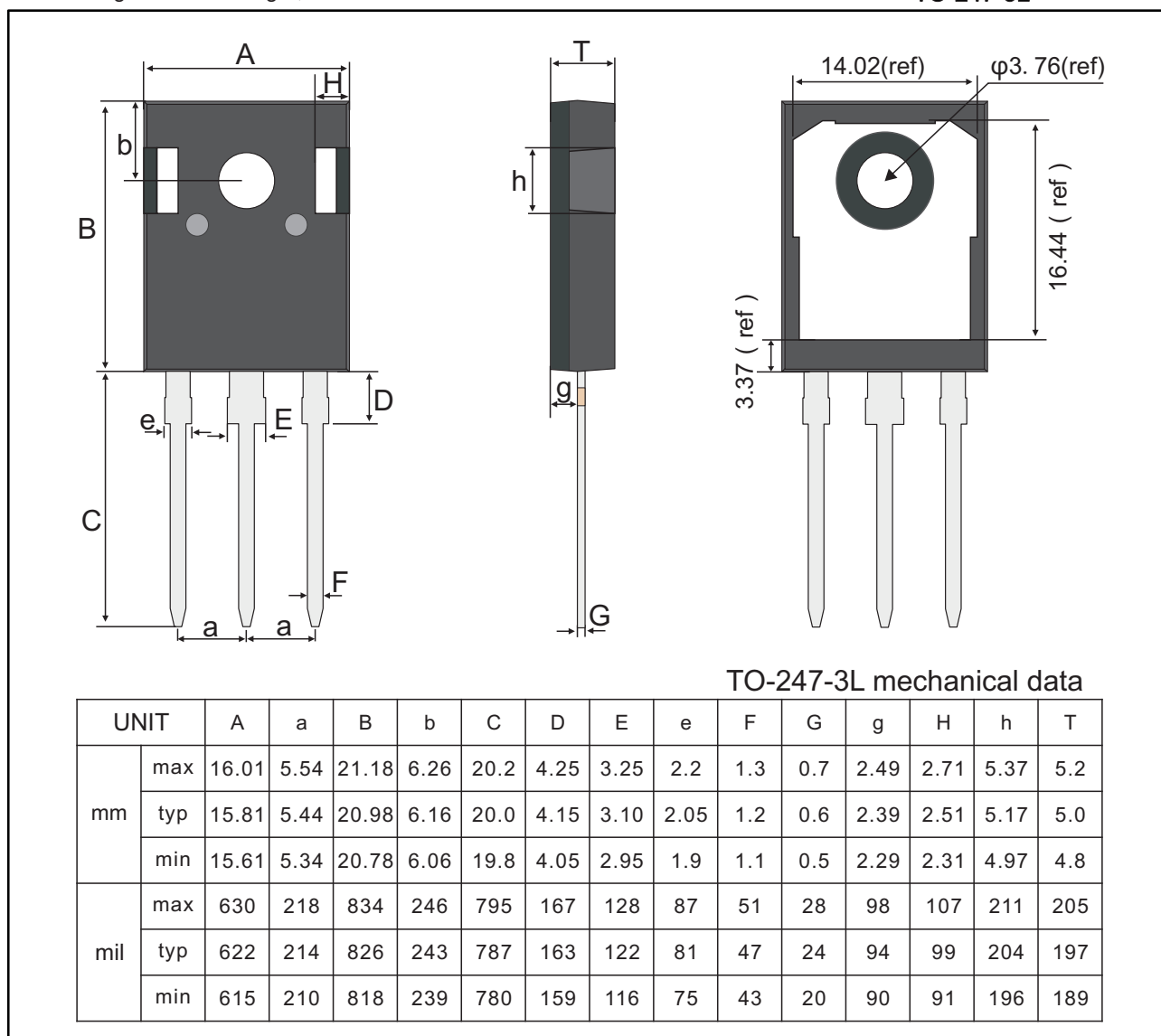
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



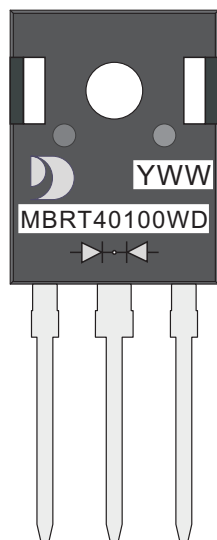


Package Outline
Through Hole Package ; 3 leads

TO-247-3L



Marking Diagram



YWW: Date Code
Y: Years(0~9)
WW: Week
MBRT40100WD: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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