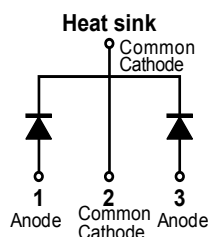


MBR40100WT



Pin out



Description

Littelfuse MBR series Schottky Barrier Rectifier is designed to meet the general requirements of commercial applications by providing high temperature, low leakage and low V_F products.

It is suitable for high frequency switching mode power supply, free-wheeling diodes and polarity protection diodes.

Features

- High junction temperature capability
- High frequency operation capability
- Guard ring for enhanced ruggedness and long term reliability
- Low forward voltage drop
- High frequency operation capability
- Common cathode configuration in TO-247AD package

Applications

- Switching mode power supply
- DC/DC converters
- Free-wheeling diodes
- Polarity protection diodes

Maximum Ratings

| Parameters | Symbol | Test Conditions | Max | Unit |
|---|-------------|---|-----------------------------------|------|
| Peak Inverse Voltage | V_{RWM} | - | 100 | V |
| Average Forward Current | $I_{F(AV)}$ | 50% duty cycle @ $T_C = 135^\circ\text{C}$ rectangular wave form | 20 (per leg) 40 (total device) | A |
| Peak One Cycle Non-Repetitive Surge Current (per leg) | I_{FSM} | 8.3 ms, half Sine pulse | 280 | A |

Electrical Characteristics

| Parameters | Symbol | Test Conditions | Max | Unit |
|-------------------------------------|----------|--|--------|------------------|
| Forward Voltage Drop (per leg) * | V_{F1} | @ 20A, Pulse, $T_J = 25^\circ\text{C}$ | 0.88 | V |
| | V_{F2} | @ 20A, Pulse, $T_J = 125^\circ\text{C}$ | 0.74 | |
| Reverse Current (per leg) * | I_{R1} | @ $V_R = \text{rated } V_{DC}$, $T_J = 25^\circ\text{C}$ | 1.0 | mA |
| | I_{R2} | @ $V_R = \text{rated } V_{DC}$, $T_J = 125^\circ\text{C}$ | 6.0 | |
| Junction Capacitance (per leg) | C_T | @ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$, $f_{SIG} = 1\text{MHz}$ | 400 | pF |
| Typical Series Inductance (per leg) | L_S | Measured lead to lead 5 mm from package body | 8.0 | nH |
| Voltage Rate of Change | dv/dt | | 10,000 | V/ μs |

* Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications

| Parameters | Symbol | Test Conditions | Max | Unit |
|--|------------|-----------------|-------------|------|
| Junction Temperature | T_J | | -55 to +150 | °C |
| Storage Temperature | T_{stg} | | -55 to +150 | °C |
| Maximum Thermal Resistance Junction to Case | R_{thJC} | DC operation | 2.0 | °C/W |
| Approximate Weight | wt | | 6.7 | g |
| Case Style | | TO-247AD | | |

Figure 1: Typical Forward Characteristics

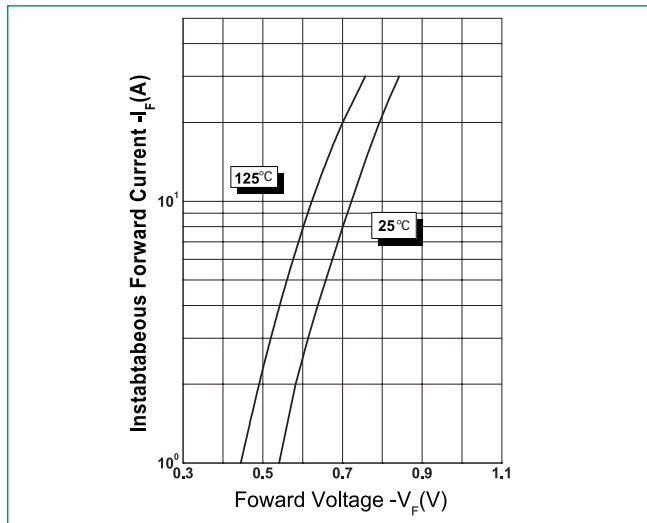


Figure 2: Typical Reverse Characteristics

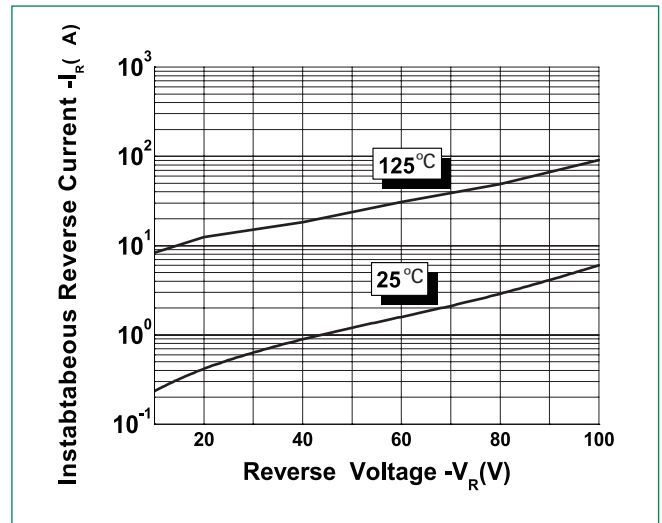
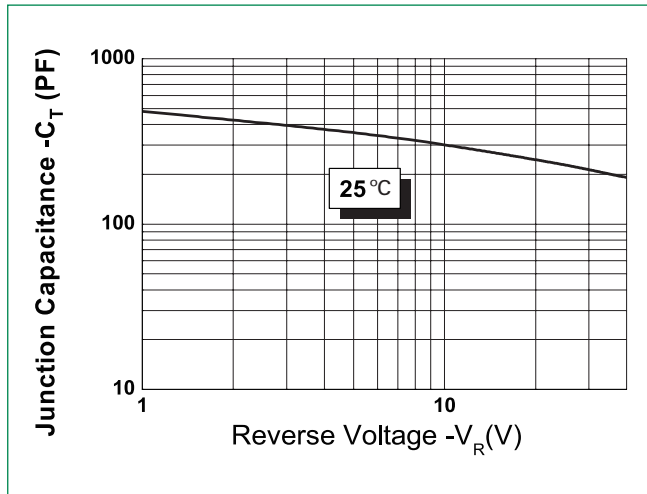
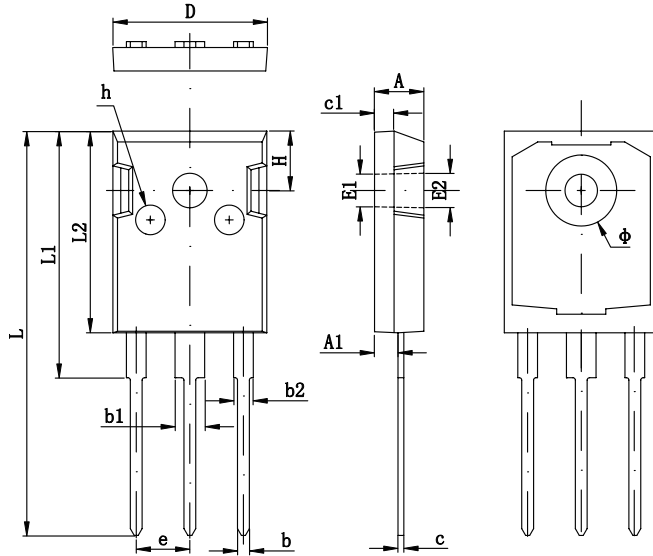


Figure 3: Typical Junction Capacitance



Dimensions- TO-247AD



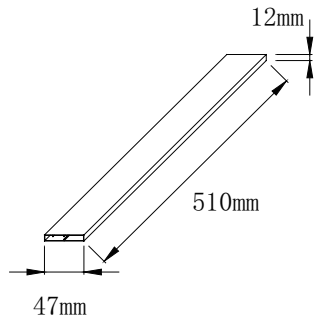
| Symbol | Millimeters | |
|--------|-------------|--------|
| | Min | Max |
| A | 4.70 | 5.31 |
| A1 | 2.21 | 2.61* |
| A2 | 1.50 | 2.49 |
| b | 0.99 | 1.40 |
| b1 | 1.65 | 2.39 |
| b2 | 2.59 | 3.43 |
| c | 0.38 | 0.89 |
| D | 20.30* | 21.46 |
| D1 | 13.08 | - |
| D2 | 0.51 | 1.35 |
| E | 14.80* | 16.26 |
| E1 | 13.46 | - |
| E2 | 4.32 | 5.49 |
| E3 | 1.45* | 2.74 |
| e | 5.461 BSC | |
| L | 19.42* | 20.85* |
| L1 | - | 4.60* |
| P | 3.35* | 3.70* |
| P1 | - | 7.40* |
| Q | 5.38 | 6.20 |
| S | 5.83* | 6.25* |

Footnote *: The spec. does not comply with JEDEC spec.

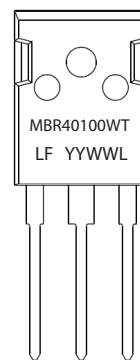
Packing Options

| Part Number | Marking | Packing Mode | M.O.O |
|-------------|------------|--------------|-------|
| MBR40100WT | MBR40100WT | 30pcs / Tube | 300 |

Tube Specification



Part Numbering and Marking System



- MBR = Device Type
- 40 = Forward Current (40A)
- 100 = Reverse Voltage (100V)
- WT = Configuration
- LF = Littelfuse
- YY = Year
- WW = Week
- L = Lot Number

单击下面可查看定价，库存，交付和生命周期等信息

[>>Littelfuse\(美国力特\)](#)