

## ULBF Plastic-Encapsulate Bridge Rectifier

### ● Features

- Ideal for printed circuit board
- Low forward voltage drop
- High surge current capability
- Designed for Surface Mount Application

### ● Applications

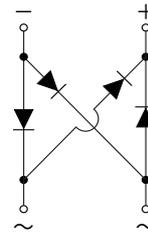
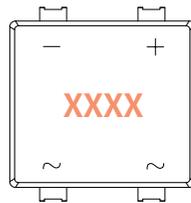
General purpose 1 phase Bridgerectifier applications

### ● Mechanical Data

- Case: ULBF  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

### ● Function Diagram

**Reverse Voltage**  
100-1000 V  
**Forward Current**  
8 Ampere



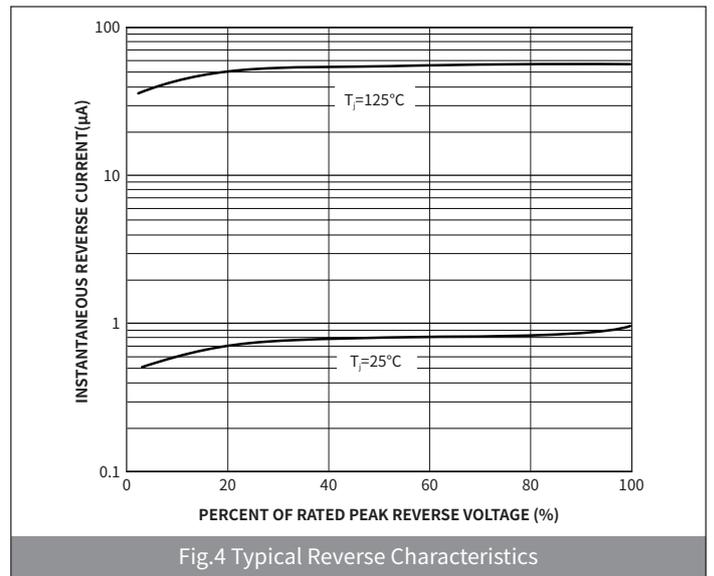
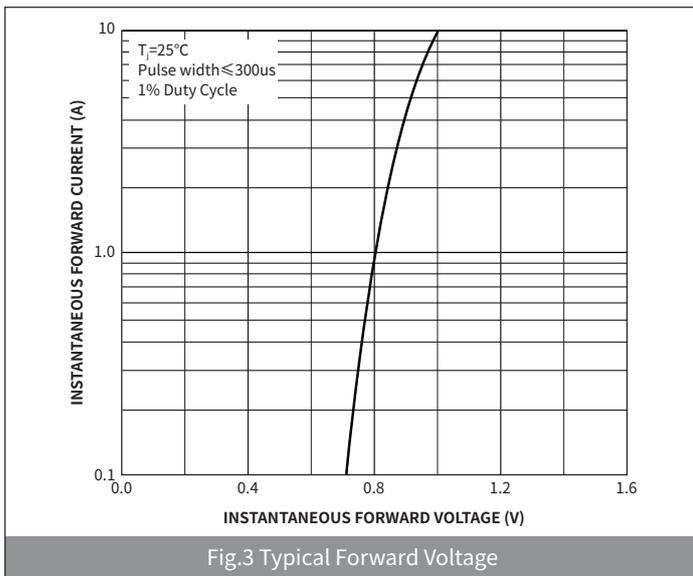
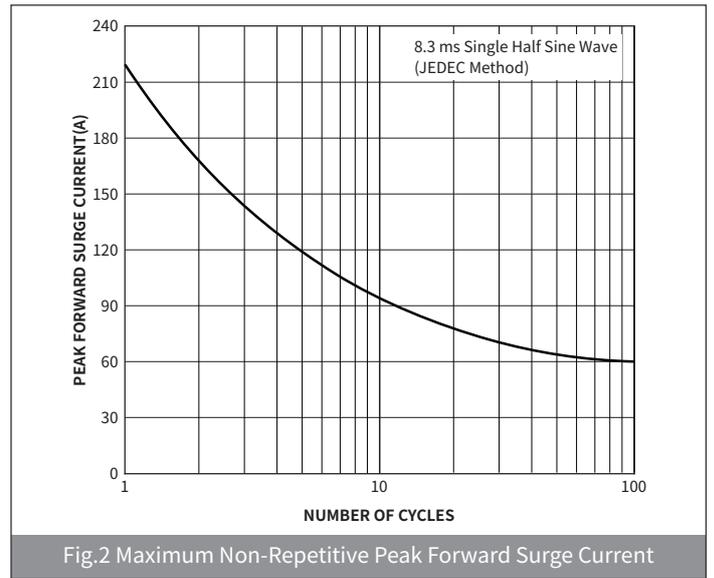
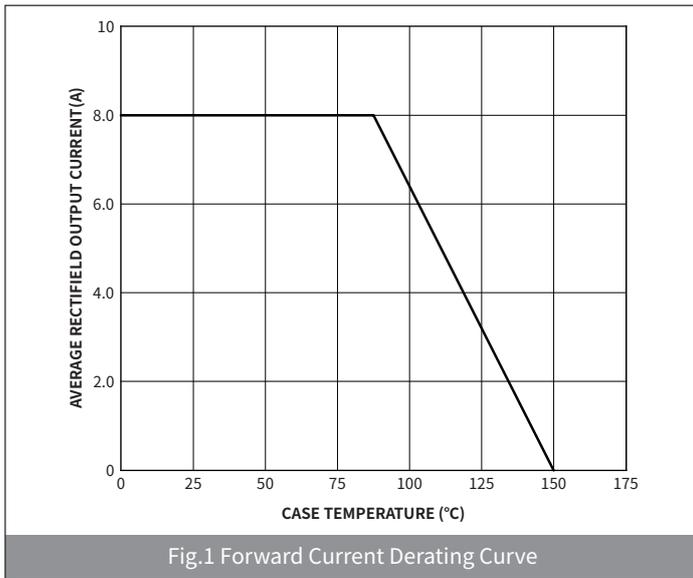
### ● Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT             | ULBF801    | ULBF802 | ULBF804 | ULBF806 | ULBF808 | ULBF810 |
|---|------------------|------------------|------------|---------|---------|---------|---------|---------|
| Device marking code   |                  |                  | ULBF801    | ULBF802 | ULBF804 | ULBF806 | ULBF808 | ULBF810 |
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$        | V                | 100        | 200     | 400     | 600     | 800     | 1000    |
| Maximum RMS Voltage   | $V_{RMS}$        | V                | 70         | 140     | 280     | 420     | 560     | 700     |
| Maximum DC blocking Voltage   | $V_{DC}$         | V                | 100        | 200     | 400     | 600     | 800     | 1000    |
| Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1) | $I_{F(AV)}$      | A                | 8.0        |         |         |         |         |         |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave                    | $I_{FSM}$        | A                | 220        |         |         |         |         |         |
| Rating for fusing (t=8.3ms, Ta=25 °C )  | $I^2t$           | A <sup>2</sup> S | 200        |         |         |         |         |         |
| Storage temperature   | $T_{stg}$        | °C               | -55 ~ +150 |         |         |         |         |         |
| Junction temperature  | $T_j$            | °C               | -55 ~ +150 |         |         |         |         |         |
| Typical Thermal Resistance  | $R_{\theta J-A}$ | °C /W            | 32         |         |         |         |         |         |
|   | $R_{\theta J-L}$ | °C /W            | 12         |         |         |         |         |         |

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

| PARAMETER   | TEST CONDITIONS               | SYMBOL   | UNIT    | ULBF801 | ULBF802 | ULBF804 | ULBF806 | ULBF808 | ULBF810 |
|---|-------------------------------|----------|---------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage                   | $I_F=4A$                      | $V_F$    | V       | 1.0     |         |         |         |         |         |
| Maximum DC reverse current at rated DC blocking voltage | $V_R=V_{DC}, T_A=25^\circ C$  | $I_{R1}$ | $\mu A$ | 5.0     |         |         |         |         |         |
|   | $V_R=V_{DC}, T_A=125^\circ C$ | $I_{R2}$ |         | 100     |         |         |         |         |         |
| Typical junction capacitance                            | 4.0V DC, 1MHz                 | $C_J$    | pF      | 70      |         |         |         |         |         |

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



# ULBF801 THRU ULBF810

ULBF 8.0 AMP Plastic-Encapsulate Bridge Rectifier

## ● Ordering Information

| PACKAGE | PACKAGE CODE | REEL(pcs) | BOX(pcs) | CARTON(pcs) | DELIVERY MODE |
|---------|--------------|-----------|----------|-------------|---------------|
| ULBF    | R3           | 3000      | 6000     | 30000       | 13"           |

## ● Package Outline Dimensions (ULBF)

| Symbol         | Dimensions  |       |        |       |
|----------------|-------------|-------|--------|-------|
|                | Millimeters |       | Inches |       |
|                | Min.        | Max.  | Min.   | Max.  |
| A              | 1.35        | 1.75  | 0.053  | 0.069 |
| C              | 0.25        | 0.55  | 0.010  | 0.022 |
| D              | 9.40        | 9.80  | 0.370  | 0.386 |
| E              | 8.40        | 8.80  | 0.331  | 0.346 |
| E <sub>1</sub> | 9.80        | 10.20 | 0.386  | 0.402 |
| L              | 0.85        | 1.25  | 0.033  | 0.049 |
| e              | 4.90        | 5.30  | 0.193  | 0.209 |
| b              | 1.25        | 1.55  | 0.049  | 0.061 |
| ∠              | 10°         |       | 10°    |       |

## ● Suggested Pad Layout

| Symbol | Dimensions  |      |        |       |
|--------|-------------|------|--------|-------|
|        | Millimeters |      | Inches |       |
|        | Min.        | Max. | Min.   | Max.  |
| M      | —           | 8.70 | —      | 0.343 |
| N      | —           | 5.10 | —      | 0.201 |
| Y      | —           | 2.10 | —      | 0.083 |
| X      | —           | 1.80 | —      | 0.071 |