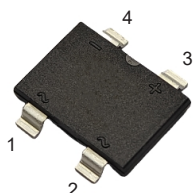


## Ultrasoft Recovery Bridge

LBS Package



### PINNING

| PIN | DESCRIPTION        |
|-----|--------------------|
| 1   | Input Pin (~)      |
| 2   | Input Pin (~)      |
| 3   | Output Anode (+)   |
| 4   | Output Cathode (-) |

### Features

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 6.0 A
- High Surge Current Capability
- Designed For Surface Mount Application

### Benefits

- Case: LBS
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102;

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter                                                                                         | Symbols                                                     | WRLBS60M       | Units            |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------|------------------|
| Maximum Repetitive Peak Reverse Voltage                                                           | VRRM                                                        | 1000           | V                |
| Maximum RMS voltage                                                                               | VRMS                                                        | 700            | V                |
| Maximum DC Blocking Voltage                                                                       | VDC                                                         | 1000           | V                |
| Average Rectified Output Current                                                                  | I <sub>o</sub>                                              | 6.0            | A                |
| Reverse Recovery Time.<br>IF=0.5A, IR=1A, IRR=0.25A                                               | T <sub>rr</sub>                                             | 10             | us               |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>                                            | 170            | A                |
| I <sup>2</sup> t rating for fusing ( 1ms< t < 8.3ms)                                              | I <sup>2</sup> t                                            | 120            | A <sup>2</sup> S |
| Maximum Forward Voltage at 3.0 A                                                                  | VF                                                          | 1.1            | V                |
| Maximum DC Reverse Current @TA=25 °C<br>at Rated DC Blocking Voltage @TA=125 °C                   | IR                                                          | 5<br>100       | μA               |
| Typical Junction Capacitance (Note1)                                                              | C <sub>j</sub>                                              | 43             | pF               |
| Operating and Storage Temperature Range                                                           | T <sub>j</sub> , T <sub>stg</sub>                           | -55 ~ +150     | °C               |
| Typical thermal resistance                                                                        | R <sub>thJC</sub><br>R <sub>thJA</sub><br>R <sub>thJL</sub> | 14<br>72<br>12 | °C/W             |

Note: 1. Measured at 1MHz and applied reverse voltage of 5 VDC.

## RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG.1 Derating Curve Output Rectified Current

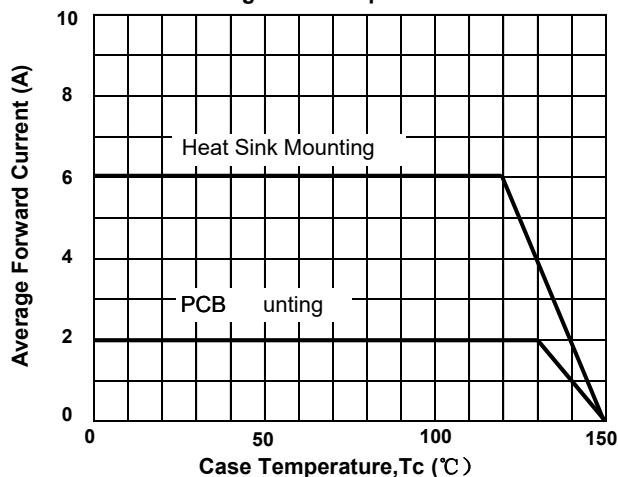


FIG.2 Typical Forward Characteristics per Diode

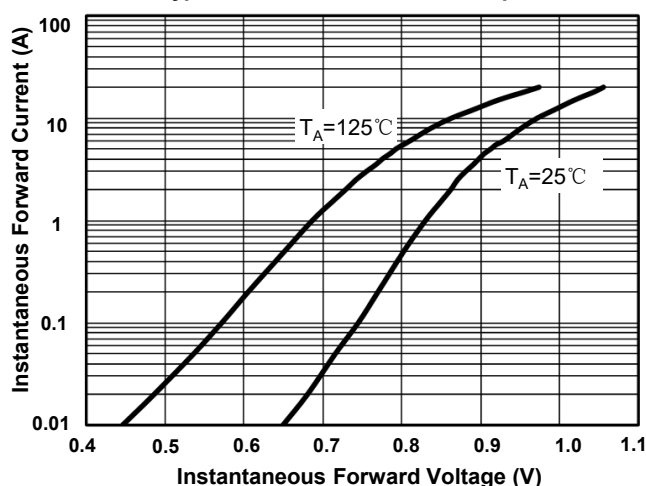


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

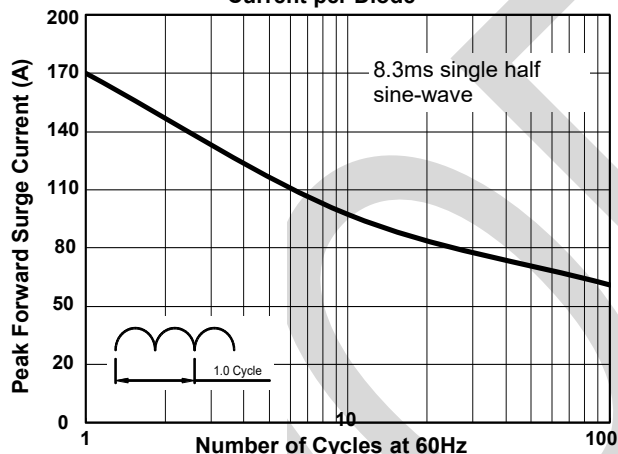


FIG.4 Typical Reverse Characteristics per Diode

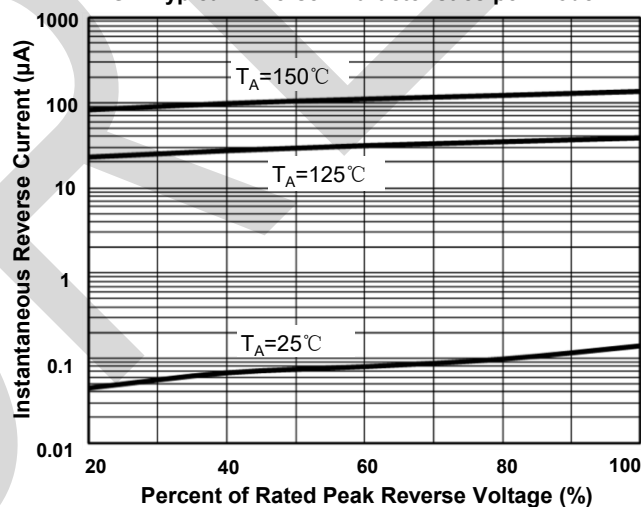
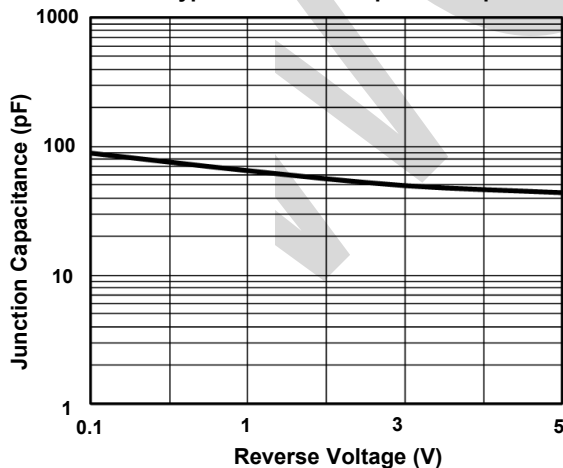
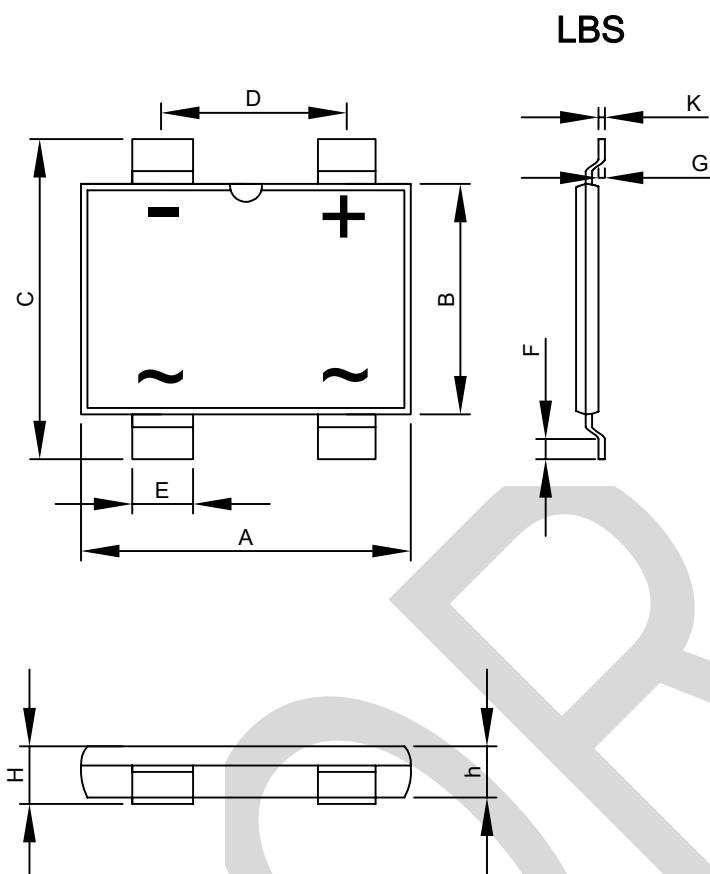


FIG.5 Typical Junction Capacitance per Diode

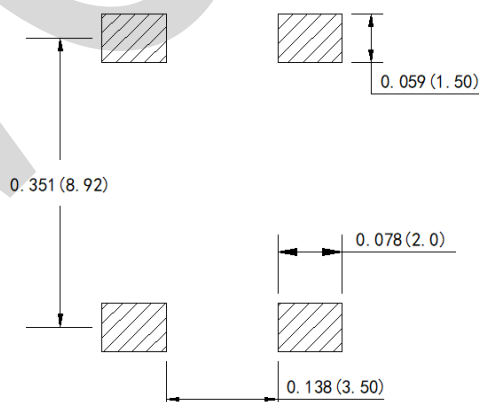


## PACKAGE OUTLINE DIMENSIONS



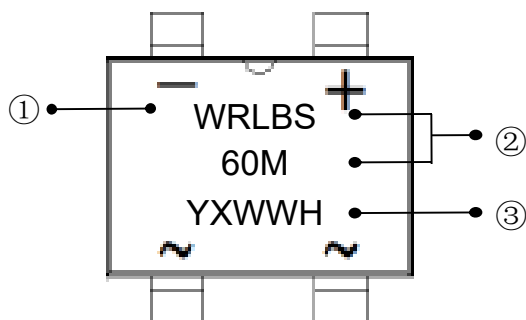
| LBS |       |       |
|-----|-------|-------|
| Dim | Min   | Max   |
| A   | 10.05 | 10.35 |
| B   | 7.00  | 7.40  |
| C   | 9.75  | 10.05 |
| D   | 5.25  | 5.60  |
| E   | 1.70  | 1.90  |
| F   | 0.45  | 0.95  |
| G   | 0.00  | 0.20  |
| H   | 1.45  | 1.80  |
| h   | 1.45  | 1.65  |
| K   | 0.15  | 0.35  |

## Suggested PCB printfoot layout



Unit: inches (mm)

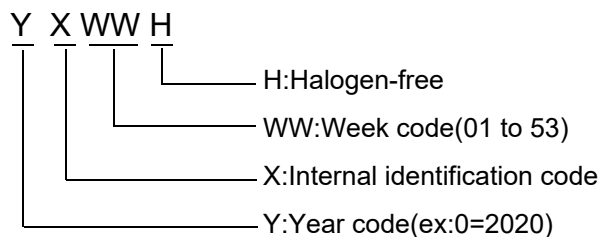
## Marking Information



①WR : Soft-Bridge

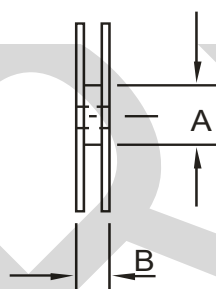
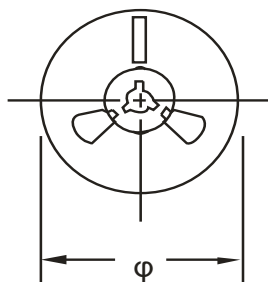
②Product model : LBS60M

③PDC information:

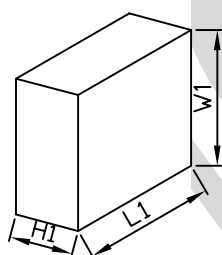


## Packaging Information

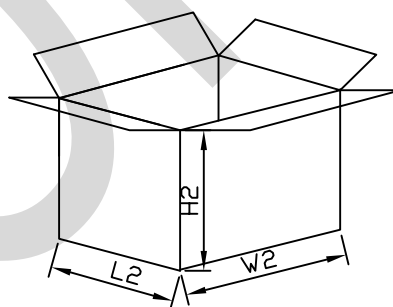
### 1.Reel Dimensions



### 2. Inside Box



### 3. Outside Box



## Packaging Information

| NO   | UNIT                                                          | Reel Dimensions                |     |    | Inside Box               |     |    | Outside Box                      |     |     |
|------|---------------------------------------------------------------|--------------------------------|-----|----|--------------------------|-----|----|----------------------------------|-----|-----|
| Size | mm                                                            | φ                              | A   | B  | L1                       | W1  | H1 | L2                               | W2  | H2  |
|      |                                                               | 331                            | 110 | 28 | 340                      | 340 | 43 | 360                              | 360 | 270 |
| QTY  | PCS                                                           | Smallest package,2,500PCS/reel |     |    | 2,500PCS,1 reel in total |     |    | 15,000PCS/carton,6boxes in total |     |     |
| Note | Tolerance    ≤20mm,±3mm;    21-100mm,±5mm;    101-500mm,±10mm |                                |     |    |                          |     |    |                                  |     |     |