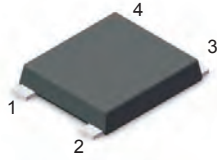


## Ultrasoft Recovery Bridge



MSB 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 - 6A
- High Surge Current Capability
- Designed For Surface Mount Application

### Benefits

- Case: MSB
- Terminals: Solderable Per MIL-STD-750
- Reduced power loss and switching transistor

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

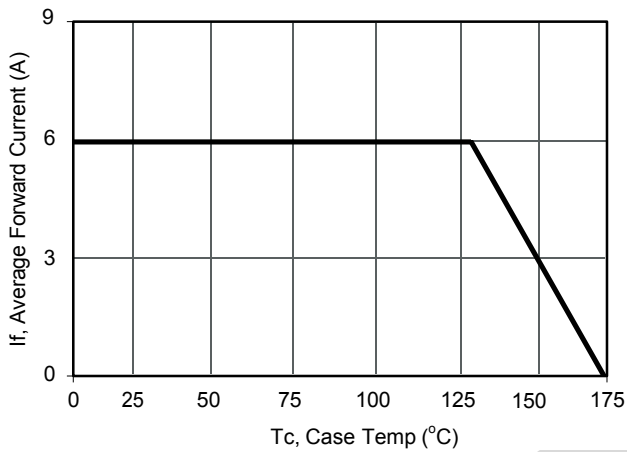
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter   | Symbols          | WRMSB60J   | WRMSB60K | WRMSB60M | Units            |
|---|------------------|------------|----------|----------|------------------|
| Maximum Repetitive Peak Reverse Voltage   | VRRM             | 600        | 800      | 1000     | V                |
| Maximum RMS voltage   | VRMS             | 420        | 560      | 700      | V                |
| Maximum DC Blocking Voltage   | VDC              | 600        | 600      | 1000     | V                |
| Average Rectified Output Current  | $I_o$            | 6.0        |          |          | A                |
| Reverse Recovery Time.<br>IF=0.5A,IR=1A,IRR=0.25A   | Trr              | 10         |          |          | us               |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | IFSM             | 168        |          |          | A                |
| I <sup>2</sup> t rating for fusing ( 1ms< t < 10ms)   | I <sup>2</sup> t | 128        |          |          | A <sup>2</sup> S |
| Maximum Forward Voltage at 3.0 A  | VF               | 1.1        |          |          | V                |
| Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C                      | IR               | 5<br>100   |          |          | μA               |
| Typical Junction Capacitance (Note1)  | Cj               | 50         |          |          | pF               |
| Operating and Storage Temperature Range   | Tj, Tstg         | -55 ~ +175 |          |          | °C               |
| Typical thermal resistance (Note 2)   | RthJC<br>RthJA   | 6<br>12    |          |          | °C/W             |

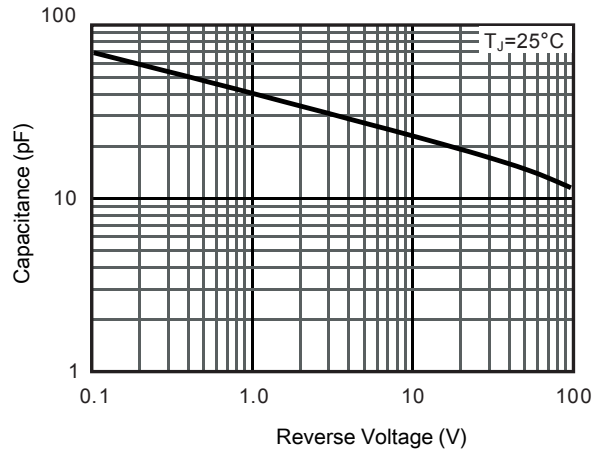
Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance from Junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 15mm\*12mm\*1.6mm AL pad attach 195mm\*195mm\*10mm steel plate

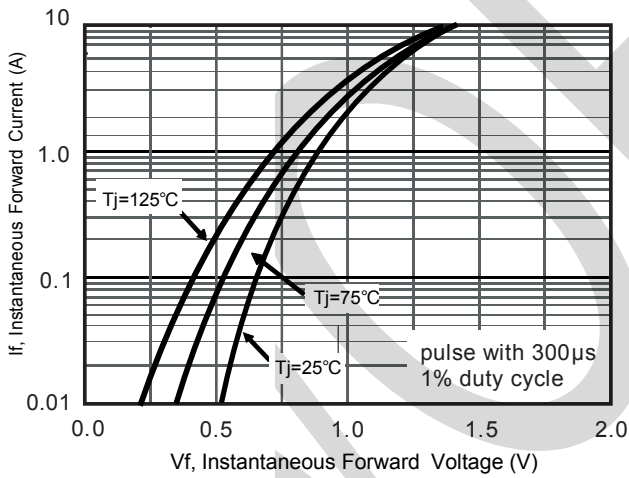
## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



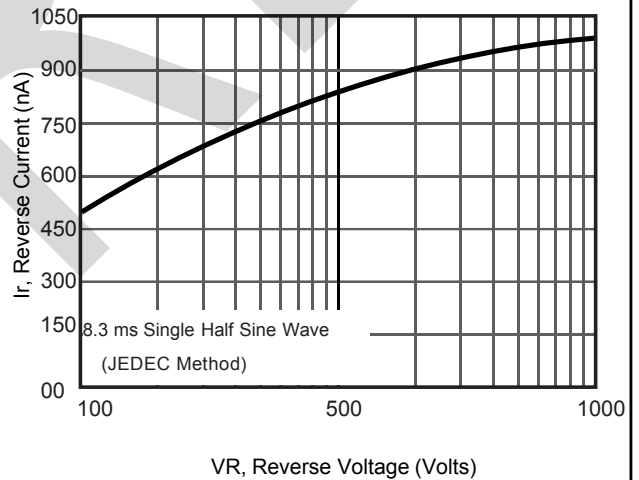
Current Derating, Case



Typical Junction Capacitance



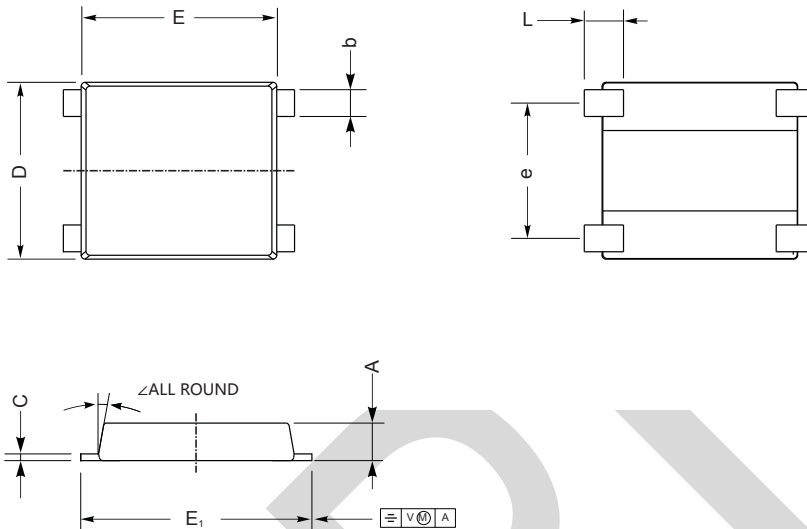
Typical Forward Voltage



Typical Reverse Current

## PACKAGE OUTLINE DIMENSIONS

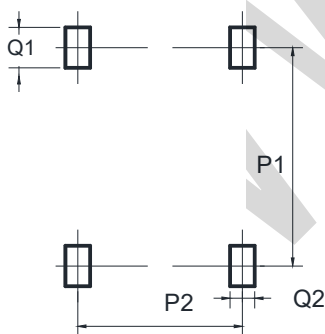
### MSB



### MSB mechanical data

| UNIT |     | A   | C    | D   | E   | E1  | L    | e   | b    | ∠  |
|------|-----|-----|------|-----|-----|-----|------|-----|------|----|
| mm   | max | 1.5 | 0.29 | 7.0 | 7.6 | 8.9 | 1.6  | 5.3 | 1.15 | 7° |
|      | min | 1.3 | 0.17 | 6.2 | 7.1 | 8.4 | 1.0  | 4.9 | 0.95 |    |
| mil  | max | 59  | 12   | 276 | 299 | 350 | 63   | 209 | 45   |    |
|      | min | 51  | 7    | 244 | 280 | 331 | 39.3 | 193 | 37   |    |

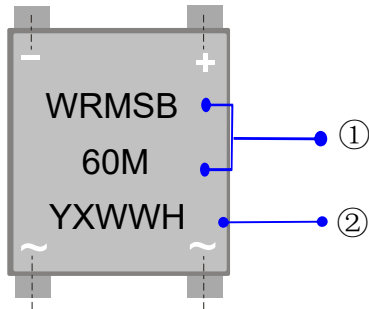
### MSB Suggested Pad Layout



Dimensions is millimeters

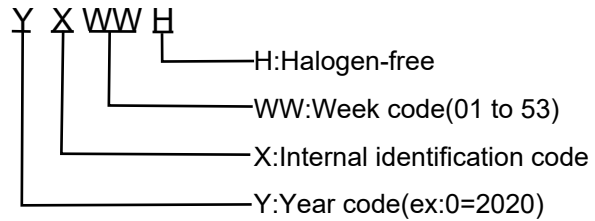
| UNIT |     | P1     | P2     | Q1   | Q2    |
|------|-----|--------|--------|------|-------|
| mm   | min | 8.30   | 5.10   | 1.6  | 1.2   |
| mil  | min | 326.77 | 200.79 | 63.0 | 47.25 |

## Marking Information



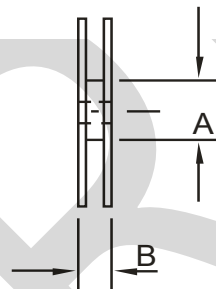
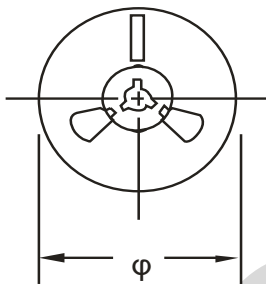
① Product model : WRMSB60J or WRMSB60K or WRMSB60M

② PDC information:

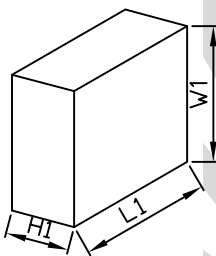


## Packaging Information

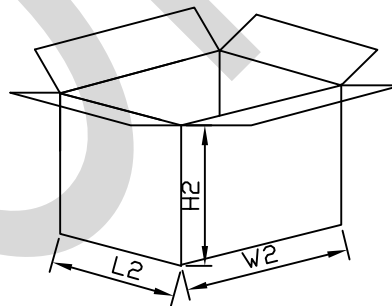
### 1.Reel Dimensions



### 2. Inside Box



### 3. Outside Box



## Packaging Information

| NO   | UNIT | Reel Dimensions               |     |    | Inside Box               |     |    | Outside Box                      |     |     |
|------|------|-------------------------------|-----|----|--------------------------|-----|----|----------------------------------|-----|-----|
|      |      | φ                             | A   | B  | L1                       | W1  | H1 | L2                               | W2  | H2  |
| Size | mm   | 330                           | 100 | 15 | 340                      | 340 | 46 | 360                              | 360 | 270 |
| QTY  | PCS  | Smallest package,3000PCS/reel |     |    | 6,000PCS,2 reel in total |     |    | 30,000PCS/carton,5boxes in total |     |     |
| Note |      | Tolerance ≤20mm,±3mm;         |     |    | 21-100mm,±5mm;           |     |    | 101-500mm,±10mm                  |     |     |