

## ■ Features

- Glass passivated chip
- Low reverse leakage current
- High surge current capability
- Fast reverse recovery time

## ■ Applications

- General purpose use in AC/DC bridge full wave rectification

## ■ Mechanical Data

- Case: HBS
- Polarity symbols being marked on body
- Molding compound meets UL 94V-0 flammability rating
- RoHS-compliant, Solder plated, solderable per MIL-STD-750, Method 2026



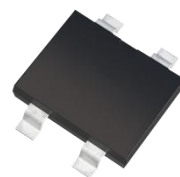
### Reverse Voltage

50-1000 V

### Forward Current

6.0 A max

### Appearance Image



## ■ Marking

- RHBS6xx(005~10)

## ■ Maximum Ratings @ Ta = 25°C unless otherwise noted

| PARAMETER                                                                          | SYMBOL             | UNIT | RHBS6005 | RHBS601 | RHBS602 | RHBS604 | RHBS606 | RHBS608 | RHBS610 |
|------------------------------------------------------------------------------------|--------------------|------|----------|---------|---------|---------|---------|---------|---------|
| Repetitive peak reverse voltage                                                    | V <sub>RRM</sub>   | V    | 50       | 100     | 200     | 400     | 600     | 800     | 1000    |
| Maximum RMS voltage                                                                | V <sub>RMS</sub>   | V    | 35       | 70      | 140     | 280     | 420     | 560     | 700     |
| Maximum DC blocking Voltage                                                        | V <sub>DC</sub>    | V    | 50       | 100     | 200     | 400     | 600     | 800     | 1000    |
| Maximum average output current@60Hz sine wave, resistance load                     | I <sub>F(AV)</sub> | A    | 6.0      |         |         |         |         |         |         |
| Peak forward surge current 8.3 ms single half sine wave superimposed on rated load | I <sub>FSM</sub>   | A    | 170      |         |         |         |         |         |         |
| Peak forward surge current 1.0 ms single half sine wave superimposed on rated load |                    | A    | 340      |         |         |         |         |         |         |
| Current squared time<br>@1ms≤t<8.3ms Tj=25℃, Rating of per diode                   | I²t                | A²S  | 119.94   |         |         |         |         |         |         |
| Maximum reverse recovery time                                                      | T <sub>rr</sub>    | ns   | 150      |         |         |         |         | 250     | 500     |
| Storage temperature                                                                | T <sub>stg</sub>   | ℃    | -55~+150 |         |         |         |         |         |         |
| Junction temperature                                                               | T <sub>j</sub>     | ℃    | -55~+150 |         |         |         |         |         |         |

## ■ Electrical Characteristics @ Ta = 25°C unless otherwise noted

| PARAMETER                                               | TEST CONDITIONS         | SYMBOL | UNIT | RHBS6005 | RHBS601 | RHBS602 | RHBS604 | RHBS606 | RHBS608 | RHBS610 |
|---------------------------------------------------------|-------------------------|--------|------|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage                   | $I_F=3.0A$              | $V_F$  | V    | 1.3      |         |         |         |         |         |         |
| Maximum DC reverse current at rated DC blocking voltage | $V_R=V_{DC}$ , Tj=25°C  | $I_R$  | μA   | 5        |         |         |         |         |         |         |
|                                                         | $V_R=V_{DC}$ , Tj=100°C | $I_R$  |      | 100      |         |         |         |         |         |         |

■ **Characteristic Curve (Typical)**

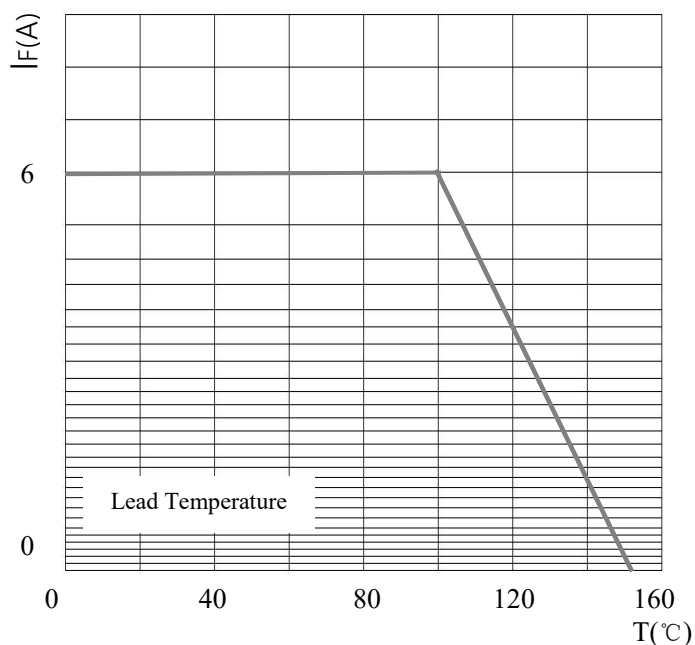


FIG1. Derating Curve For Output Rectified Current

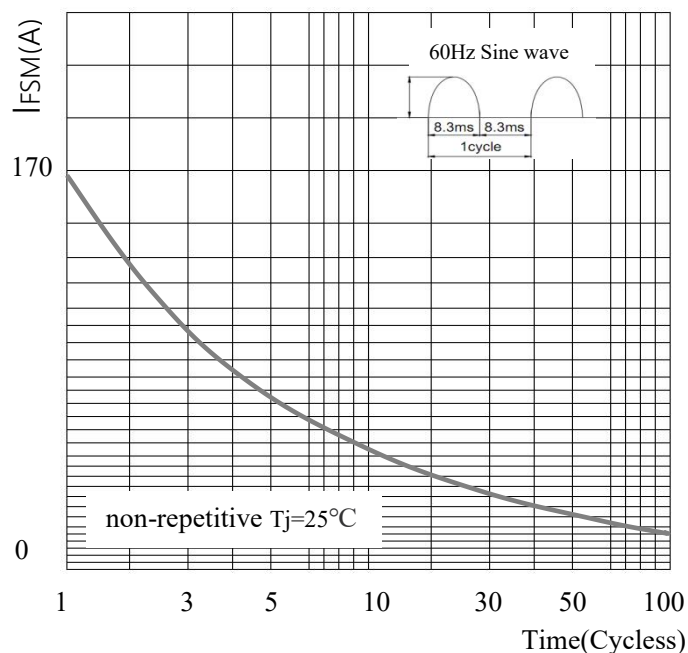


FIG2. Surge Forward Current Capability

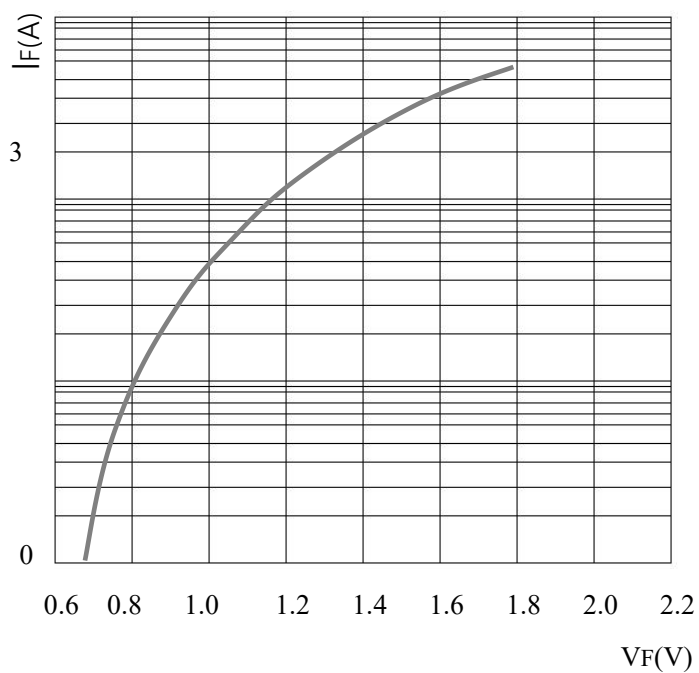


FIG3. Typical Forward Characteristics

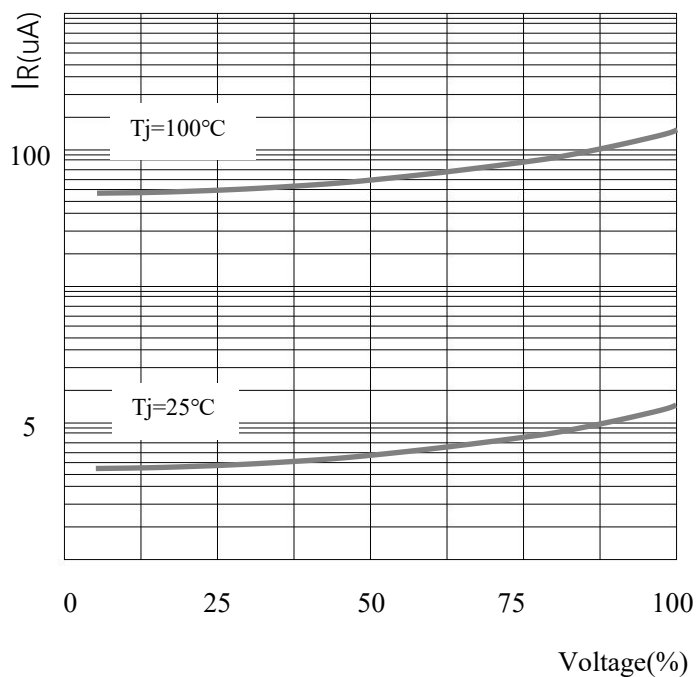
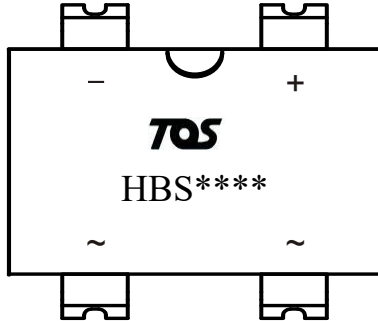


FIG4. Typical Reverse Characteristics

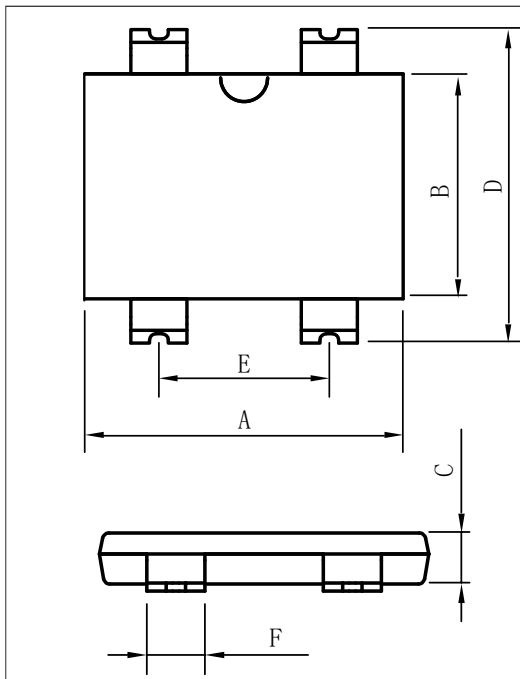
### ■ Marking and packet information



HBS\*\*\*\* : Product Type Code **TOS** : Brand Loge

| Packaging information |          |
|-----------------------|----------|
| Reel                  | 2500PCS  |
| Carton                | 25000PCS |
| Reel Size             | 13"      |

### ■ HBS Package outline dimensions



| Dimensions |        |      |             |      |
|------------|--------|------|-------------|------|
| Symbol     | Inches |      | Millimeters |      |
|            | Min.   | Max. | Min.        | Max. |
| A          | 0.39   | 0.41 | 10.0        | 10.4 |
| B          | 0.28   | 0.29 | 7.0         | 7.4  |
| C          | 0.06   | 0.07 | 1.4         | 1.8  |
| D          | 0.38   | 0.40 | 9.7         | 10.2 |
| E          | 0.21   | 0.22 | 5.3         | 5.7  |
| F          | 0.06   | 0.08 | 1.5         | 2.0  |

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