

**Fast Recovery Bridge Rectifiers****Features**

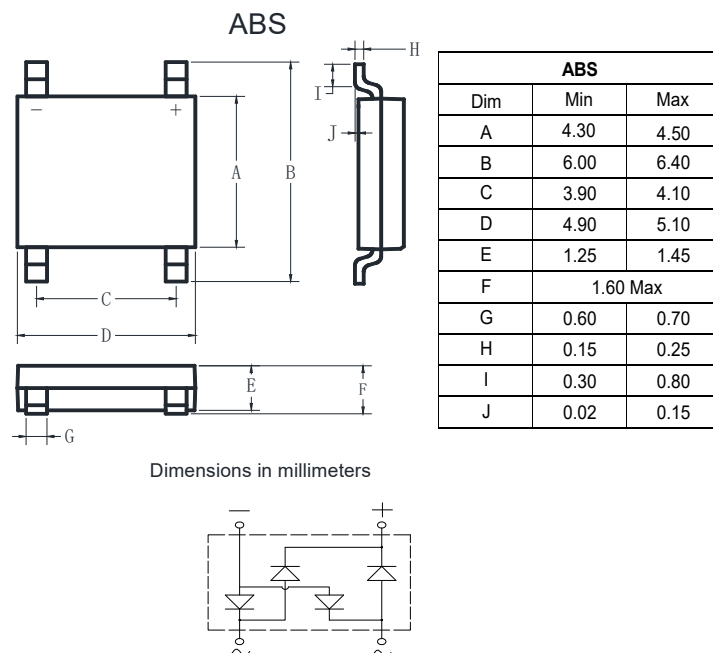
- Ideal for automated placement
- Glass passivated chip junction
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

**Typical Applications**

General purpose use in high frequency AC/DC bridge full wave rectification for SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

**Mechanical Data**

- **Package:** ABS  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

**■Maximum Ratings** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER                                                                                         | SYMBOL           | UNIT             | RABS210    |
|---------------------------------------------------------------------------------------------------|------------------|------------------|------------|
| Device marking code                                                                               |                  |                  | RABS210    |
| Maximum Repetitive Peak Reverse Voltage                                                           | VRRM             | V                | 1000       |
| Maximum RMS Voltage                                                                               | VRMS             | V                | 700        |
| Maximum DC blocking Voltage                                                                       | VDC              | V                | 1000       |
| Average rectified output current<br>@60Hz sine wave, R-load, $T_c=108^{\circ}\text{C}$            | IO               | A                | 2.0        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$ | IFSM             | A                | 50         |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$    |                  |                  | 100        |
| Current squared time<br>@1ms≤t<8.3ms $T_j=25^{\circ}\text{C}$ , Rating of per diode               | I <sup>2</sup> t | A <sup>2</sup> s | 10.4       |
| Storage temperature                                                                               | Tstg             | °C               | -55 ~ +150 |
| Junction temperature                                                                              | Tj               | °C               | -55 ~ +150 |

**■Electrical Characteristics** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER                                                         | SYMBOL          | UNIT | TEST CONDITIONS                                                      | RABS210 |
|-------------------------------------------------------------------|-----------------|------|----------------------------------------------------------------------|---------|
| Maximum reverse recovery time                                     | t <sub>rr</sub> | ns   | I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A,<br>I <sub>r</sub> =0.25A | 500     |
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub>  | V    | I <sub>FM</sub> =1.0A                                                | 1.3     |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub>  | μA   | T <sub>j</sub> =25°C                                                 | 5       |
|                                                                   |                 |      | T <sub>j</sub> =125°C                                                | 100     |
| Typical junction capacitance                                      | C <sub>j</sub>  | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C            | 15      |

# RABS210

## ■ Thermal Characteristics (Ta=25℃ Unless otherwise specified)

| PARAMETER          |                              | SYMBOL | UNIT | RABS210 |
|--------------------|------------------------------|--------|------|---------|
| Thermal Resistance | Between junction and ambient | RθJ-A  | ℃/W  | 62.5    |
|                    | Between junction and lead    | RθJ-L  |      | 25.0    |
|                    | Between junction and case    | RθJ-C  |      | 8.0     |

Note: Device mounted on P.C.B with 35mm\*25mm\*1.7mm

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

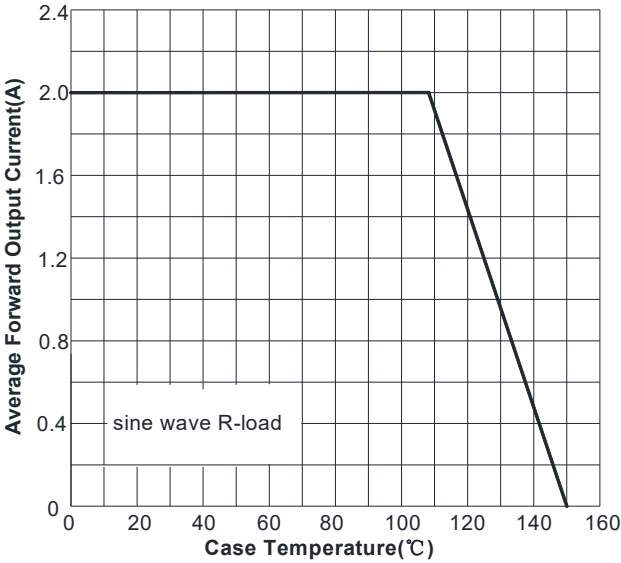


FIG2: Surge Forward Current Capability

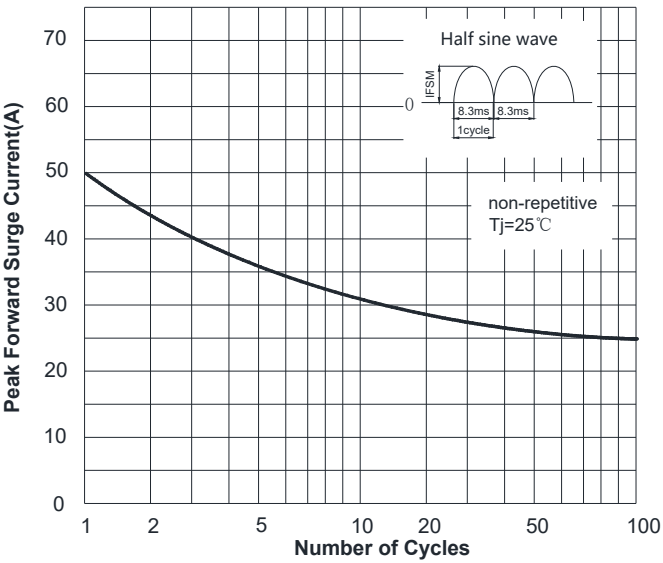


FIG3: Typical Forward Voltage

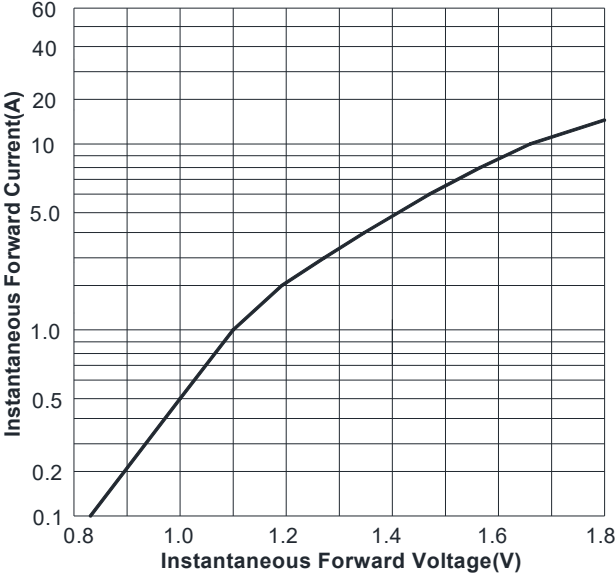


FIG4: Typical Reverse Characteristics

