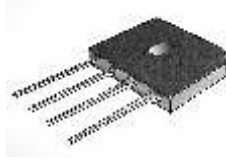


**6.0 A Single-Phase Silicon Bridge Rectifier**  
Rectifier Reverse Voltage 50 to 1000V

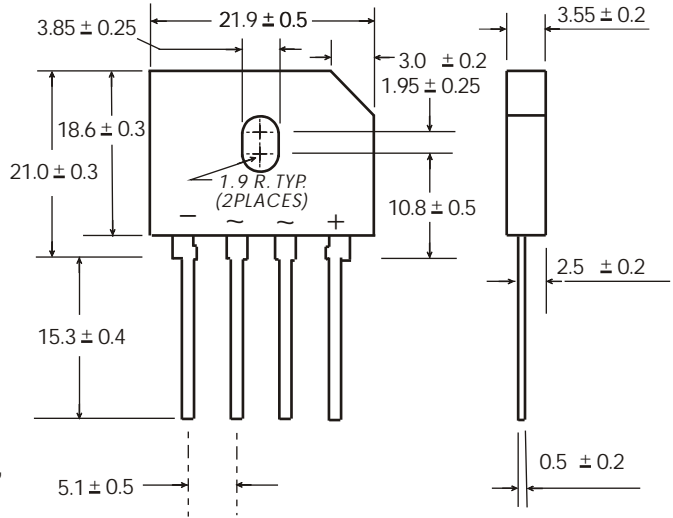


**Features**

- Ideal for P.C. Board mounting
- High surge current capability
- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

**Mechanical Data**

Case: Molded plastic body  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Polarity: Polarity symbols molded on body  
 Mounting Position:: Any  
 Mounting Torque: 5 in-lbs max.  
 Weight: 3.8 grams (approx)



Dimensions in millimeters(1mm =0.0394")

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

| Parameter   | Symbol           | GBU 6005     | GBU 601 | GBU 602 | GBU 604 | GBU 606 | GBU 608 | GBU 610 | unit               |
|---|------------------|--------------|---------|---------|---------|---------|---------|---------|--------------------|
| Maximum repetitive peak reverse voltage   | VRRM             | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum RMS bridge input voltage  | VRMS             | 35           | 70      | 140     | 280     | 420     | 560     | 700     | V                  |
| Maximum DC blocking voltage   | VDC              | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum average forward rectified output current at TA=100°C                          | IF(AV)           | 6            |         |         |         |         |         |         | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 220          |         |         |         |         |         |         | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t | 200          |         |         |         |         |         |         | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)  | ReJA             | 2.2          |         |         |         |         |         |         | °C / W             |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |         |         |         |         |         |         | °C                 |

**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

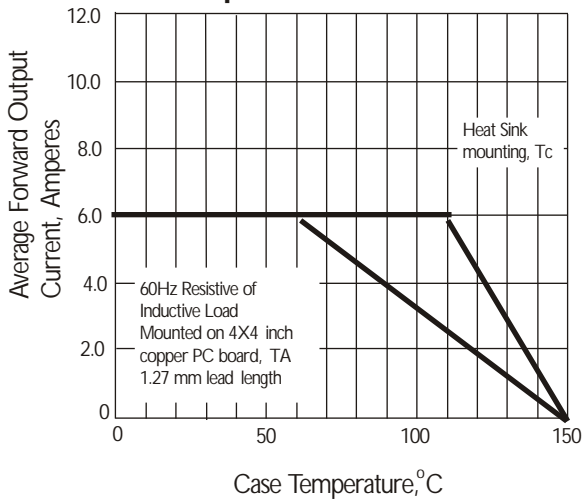
| Parameter   | Symbol | GBU 6005   | GBU 601 | GBU 602 | GBU 604 | GBU 606 | GBU 608 | GBU 610 | Unit |
|---|--------|------------|---------|---------|---------|---------|---------|---------|------|
| Maximum instantaneous forward voltage drop per leg at 10.0A         |        | 1.05       |         |         |         |         |         |         | V    |
| Maximum DC reverse current at rated DC blocking voltage per element | IR     | 5.0<br>500 |         |         |         |         |         |         | μA   |

**Notes:** (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

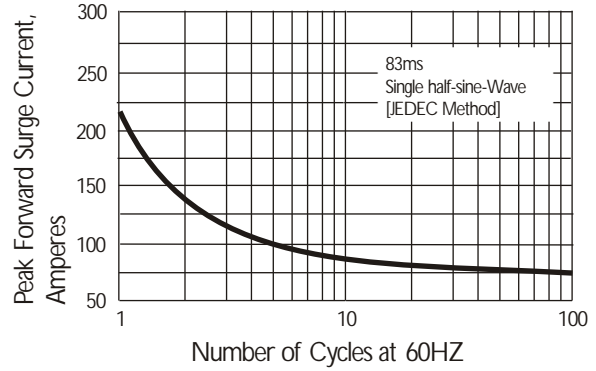
# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted )

## GBU6005 thru GBU610

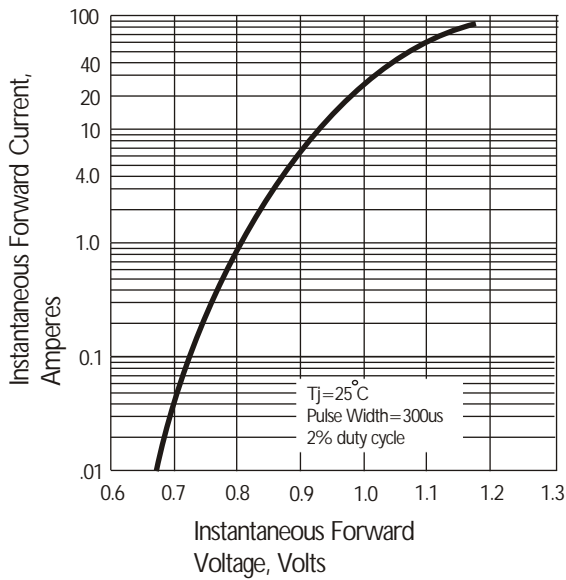
**Fig. 1 Derating Curve for Output Rectified Current**



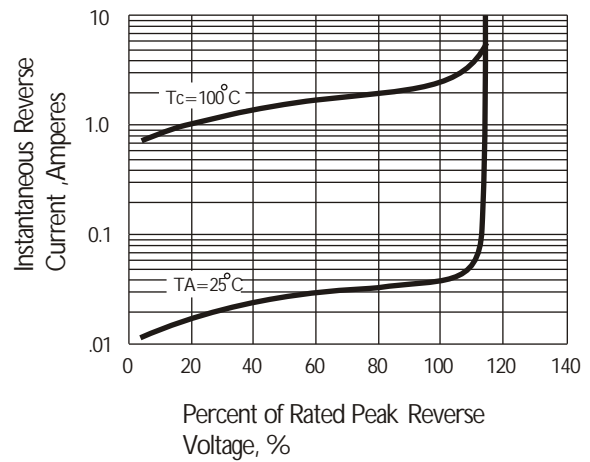
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



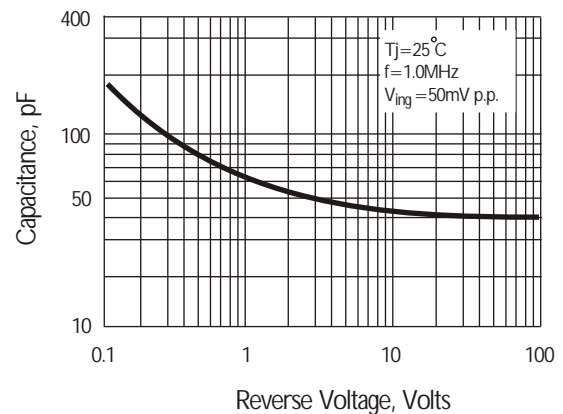
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



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