

## Single Phase Glass Passivated Bridge Rectifiers

**Reverse Voltage: 50V to 1000V**  
**Forward Current: 35 Amp**

### Features

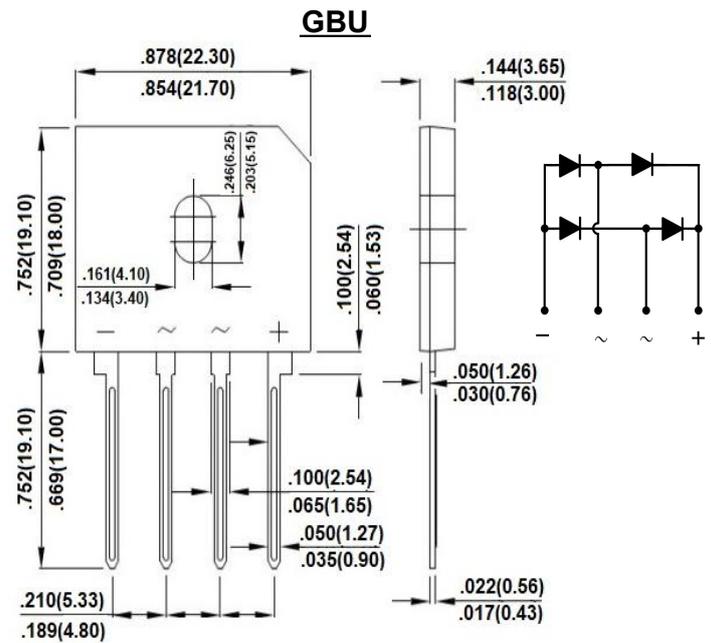
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder dip 260°C max. 10 s, per JESD 22-B106

### Mechanical Data

- **Package:** GBU  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Matte tin plated leads,  
solderable per MIL-STD-750, Method 2026
- **Polarity:** Symbol marking on body

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, switching mode power supply, adapter, audio equipment, and home appliances applications.



Package Outline Dimensions in Inches (Millimeters)

### Maximum Ratings and Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBU 35005	GBU 3501	GBU 3502	GBU 3504	GBU 3506	GBU 3508	GBU 3510	Unit
Device marking code		GBU 35005	GBU 3501	GBU 3502	GBU 3504	GBU 3506	GBU 3508	GBU 3510	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current (FIG.1)	With heatsink T <sub>c</sub> =100°C (Note 1)	35.0							A
	Without heatsink T <sub>a</sub> =40°C (Note 2)	4.2							
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I <sub>FSM</sub>	400							A
Operating junction range	T <sub>j</sub>	-55 to+150							°C
Storage temperature range	T <sub>STG</sub>	-55 to+150							°C

### Thermal Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBU 35005	GBU 3501	GBU 3502	GBU 3504	GBU 3506	GBU 3508	GBU 3510	Unit
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 2)	R <sub>θJA</sub>	13							°C/W
Maximum Thermal Resistance per Leg, Junction To Case (Note 1)	R <sub>θJC</sub>	0.8							°C/W

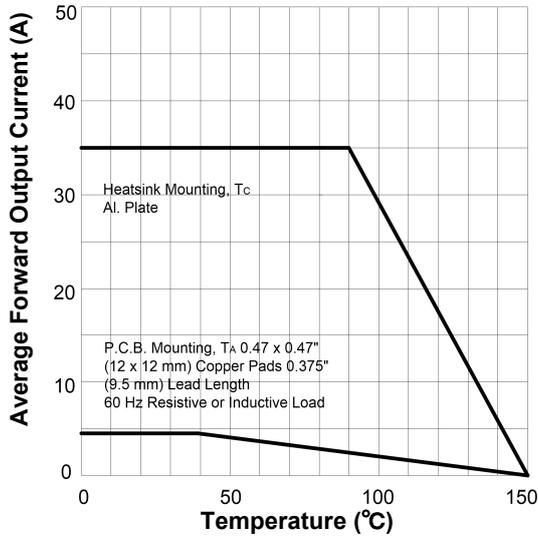
### Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBU 35005	GBU 3501	GBU 3502	GBU 3504	GBU 3506	GBU 3508	GBU 3510	Unit	
Maximum Instantaneous Forward Voltage per diode	I <sub>F</sub> =17.5A	V <sub>FM</sub>							1.10	V
Maximum DC reverse current at rated DC blocking voltage per diode	T <sub>A</sub> = 25°C	I <sub>R</sub>							5	μA
	T <sub>A</sub> = 125°C								500	

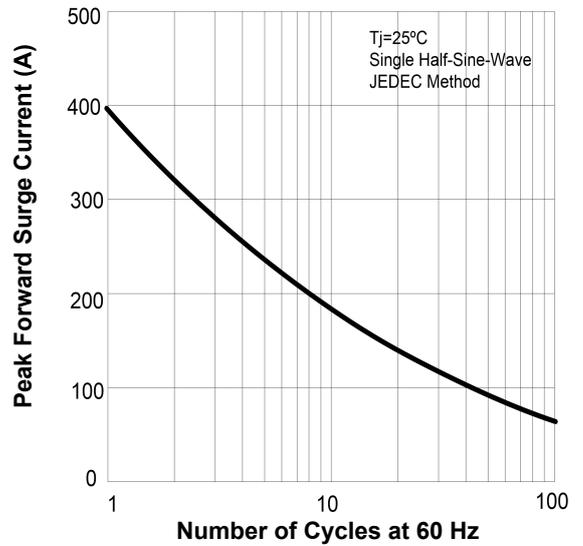
Notes:  
 1. Units case mounted on aluminum plate heatsink.  
 2. Units mounted in free air, no heatsink on PCB, 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375" (9.5 mm) lead length.

**Rating and Characteristic Curves**

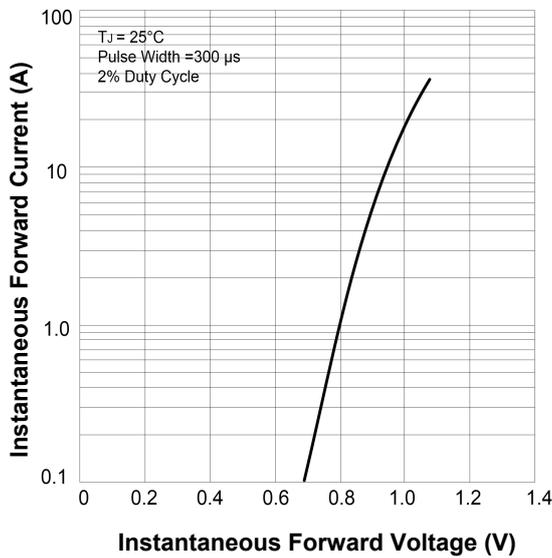
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED**



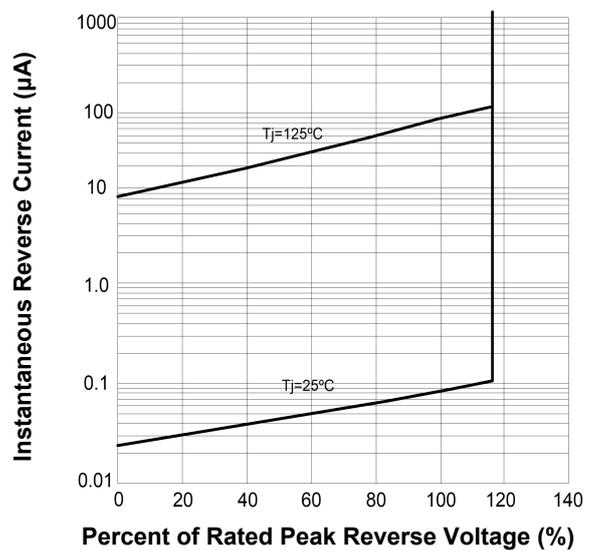
**FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode**



**FIG. 3- TYPICAL FORWARD VOLTAGE**



**FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



The curve above is for reference only.



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