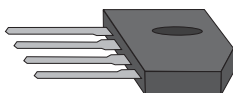




# GBU30005 THRU GBU3010

## SINGLE PHASE 30 AMP BRIDGE RECTIFIERS



### Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

### Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

### Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

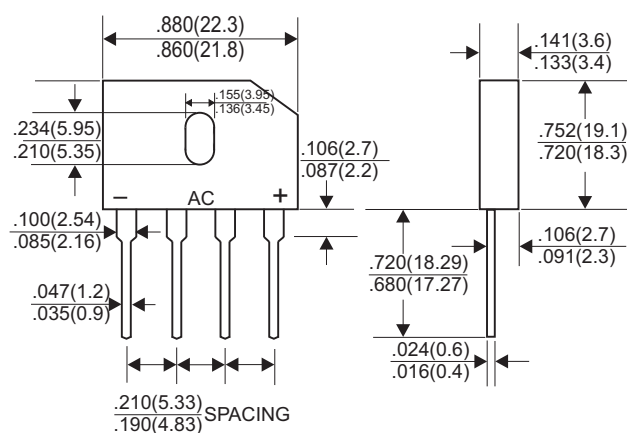
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

30 Amperes

### GBU



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristics	Symbol	GBU	GBU	GBU	GBU	GBU	GBU	GBU	Unit
		30005	3001	3002	3004	3006	3008	3010	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS 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 (with heatsink Note 2)	I(AV)	30.0							A
Rectified Current @ TC=100°C (without heatsink)		4.2							
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	380							A
I²t Rating for Fusing (t<8.3mS)	I²t	599							A²s
Peak Forward Voltage per Diode at 15A DC	VF	1.1							V
Maximum DC Reverse Current at Rated @TJ=25°C	IR	5.0							µA
DC Blocking Voltage per Diode @TJ=125°C		500							
Typical Junction Capacitance per Diode (Note1)	CJ	70							pF
Typical Thermal Resistance to case (Note2)	RθJC	2.2							°C/W
Operating Junction Temperature Range	TJ	-55 to +175							°C
Storage Temperature Range	TSTG	-55 to +175							°C

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.  
2. Device mounted on 100mm\*100mm\*1.6mm Cu plate heatsink.  
3. The typical data above is for reference only

## RATING AND CHARACTERISTIC CURVES (GBU30005 THRU GBU3010)

Fig. 1 - Forward Current Derating Curve

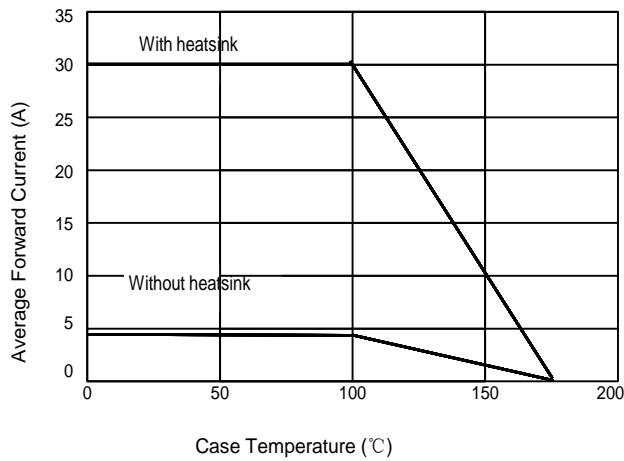


Fig. 2 - Maximum Non-Repetitive Surge Current

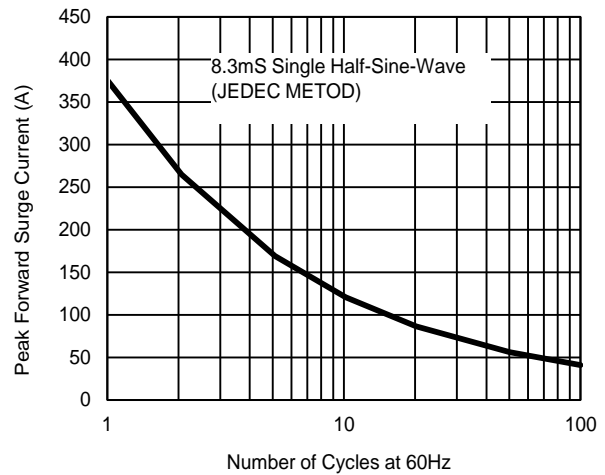


Fig. 3 - Typical Reverse Characteristics

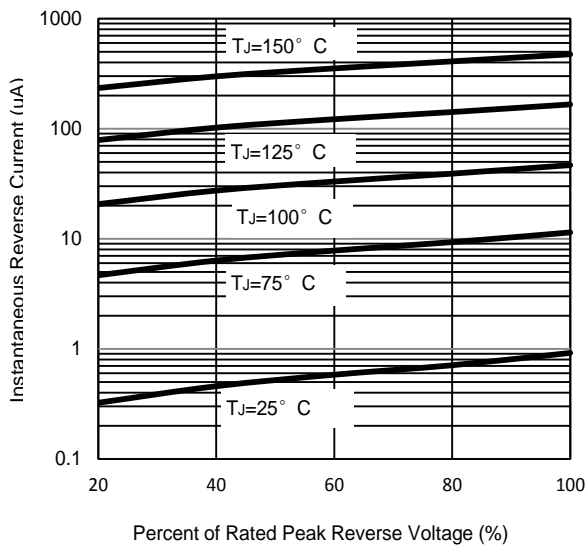


Fig. 4 - Typical Forward Characteristics

