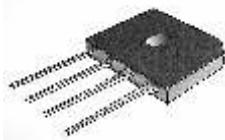




SEP ELECTRONIC CORP.

# GBU8005 thru GBU810



## 8.0 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

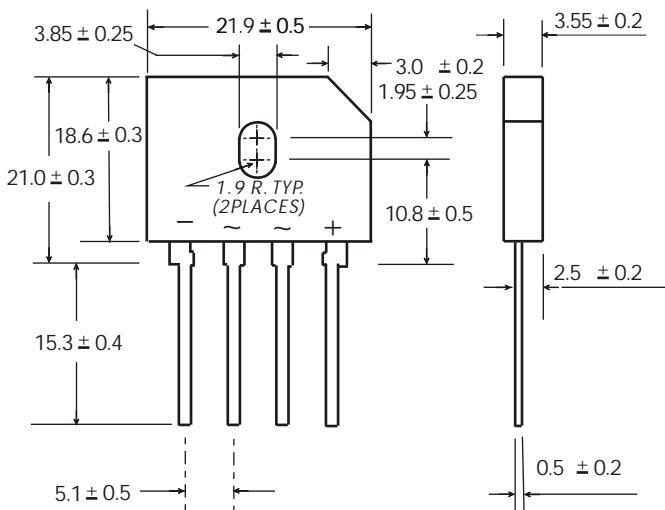
Terminals: Plated leads solderable per MIL-STD-202,  
Method 208

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 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	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)					8.0			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM					200			A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t					166			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

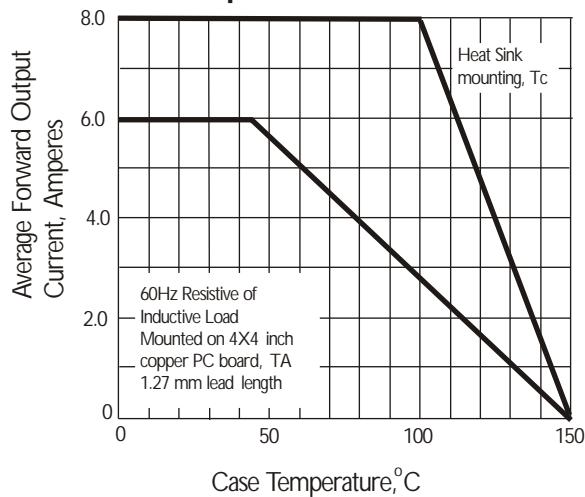
Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

Parameter	Symbol	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	Unit
Maximum instantaneous forward voltage drop per leg at 8.0A	VF				1.1				V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR				5.0				μA

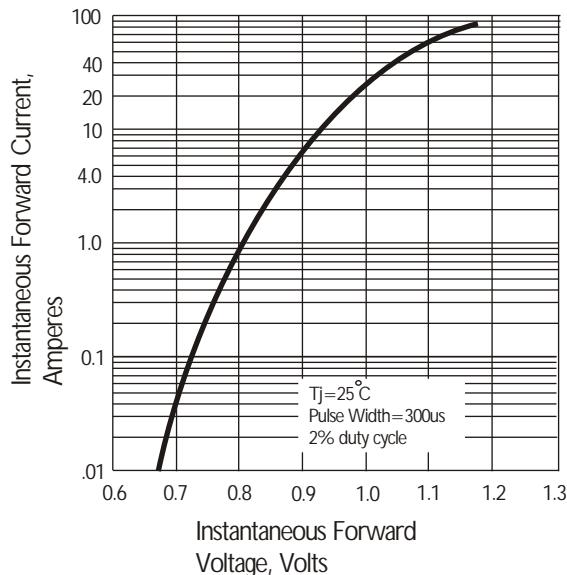
Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

**Rating and Characteristic Curves** (  $T_A = 25^\circ\text{C}$  Unless otherwise noted )  
**GBU8005 thru GBU810**

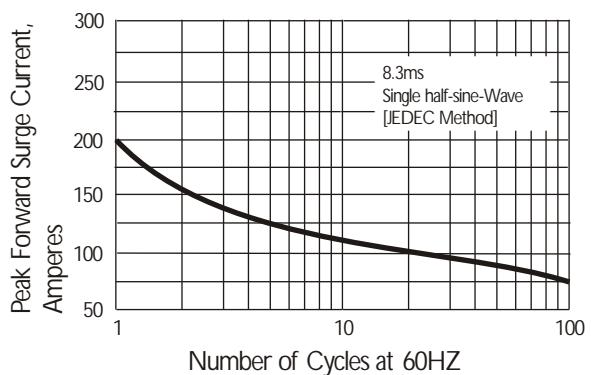
**Fig. 1 Derating Curve for Output Rectified Current**



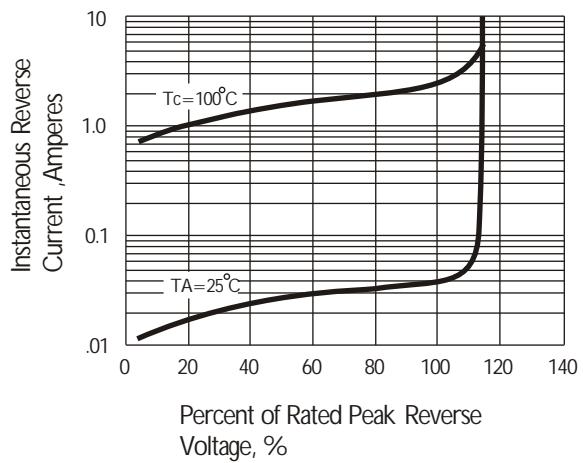
**Fig. 3 Typical Instantaneous Forward Characteristics**



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



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**

