

# GSIB405-47L THRU GSIB4100-47L

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 4.0A



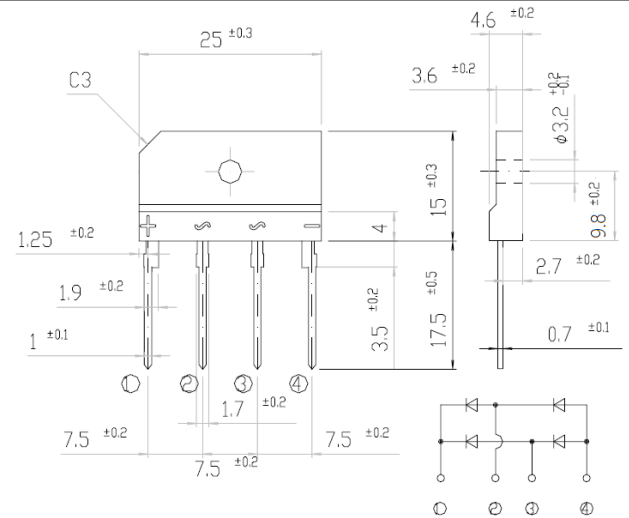
### Features

Glass passivated chip junction  
Ideal for printed circuit board  
High surge current capability  
High case dielectric strength

### Mechanical Data

Terminal: Plated leads solderable per J-STD-002  
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: any

### GSIB-3S



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	GSIB4 05- 47L	GSIB4 10- 47L	GSIB4 20- 47L	GSIB4 40- 47L	GSIB4 60- 47L	GSIB4 80- 47L	GSIB4 100- 47L	units	
Maximum repetitive 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 Rectified output current at T <sub>c</sub> = 100°C (Note 1) Ta = 25°C (Note 2)	I <sub>f(av)</sub>	4.0				2.3				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>					130				A
Peak forward surge current 1.0ms square wave T <sub>j</sub> =25°C T <sub>j</sub> =125°C	I <sub>fsm</sub>					260 230				A
Maximum instantaneous forward voltage drop per leg at 2.0A	V <sub>f</sub>					0.95				V
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t					60				A <sup>2</sup> Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	I <sub>r</sub>					10.0 250				µA
Maximum thermal resistance per leg (Note2) (Note1)	R <sub>th(ja)</sub> R <sub>th(jc)</sub>					26.0 5.0				°C/W
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>					-55 to +150				°C

Note:

- Unit case mounted on Al plate heatsink
- Unit case mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length
- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

**RATINGS AND CHARACTERISTIC CURVES GSIB405-47L THRU GSIB4100-47L**

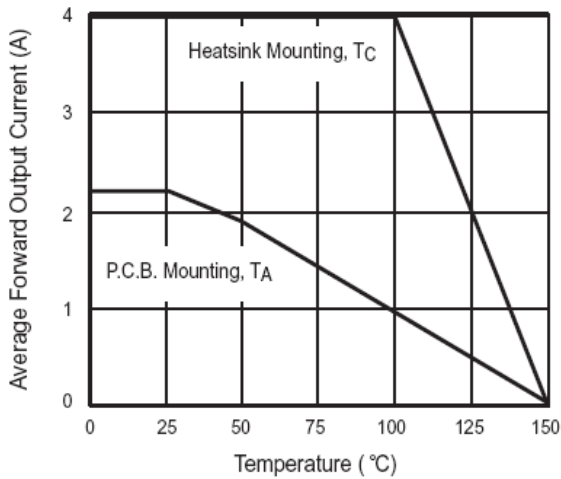


Figure 1. Derating Curve Output Rectified Current

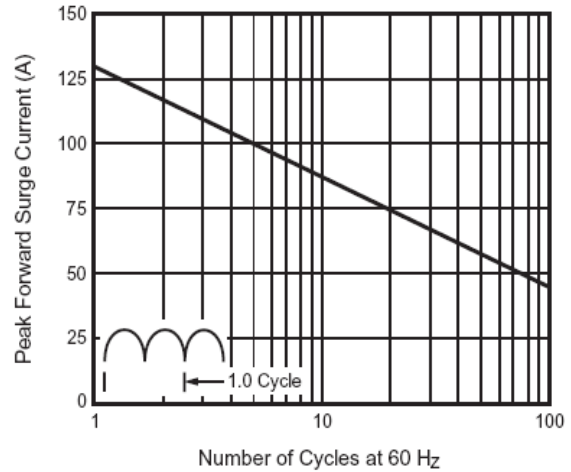


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

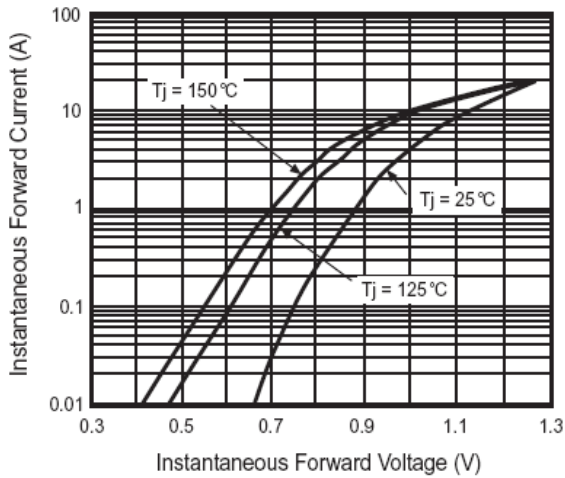


Figure 3. Typical Forward Characteristics Per Leg

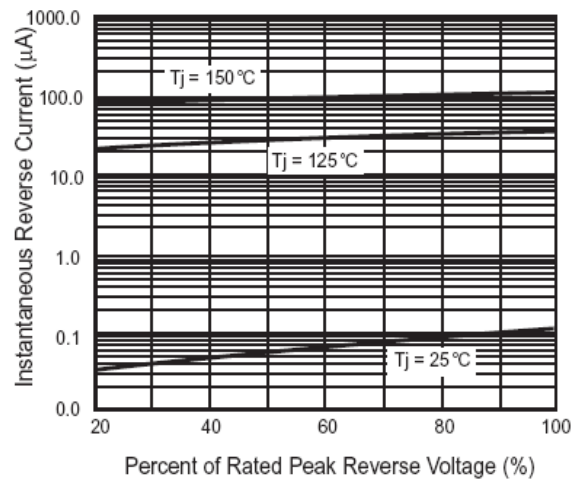


Figure 4. Typical Reverse Characteristics Per Leg

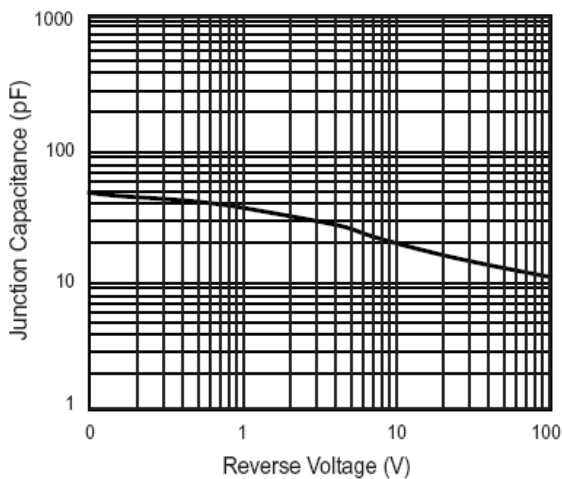


Figure 5. Typical Junction Capacitance Per Leg

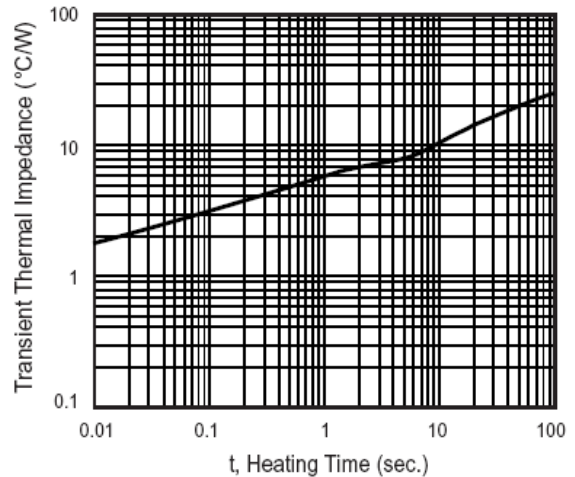


Figure 6. Typical Transient Thermal Impedance Per Leg