

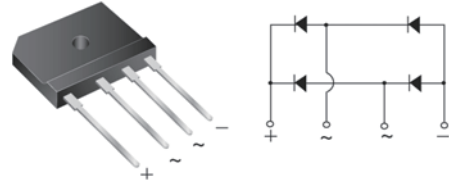


**GLASS PASSIVATED CHIP SINGLE-PHASE BRIDGE RECTIFIER**

**Reverse Voltage 50 ~ 1000 Volts , Forward Current 6.0 Amperes**

**Features**

- ◆ Thin Single In-Line package
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High surge current capability
- ◆ High case dielectric strength of 2500 V<sub>RMS</sub>
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0

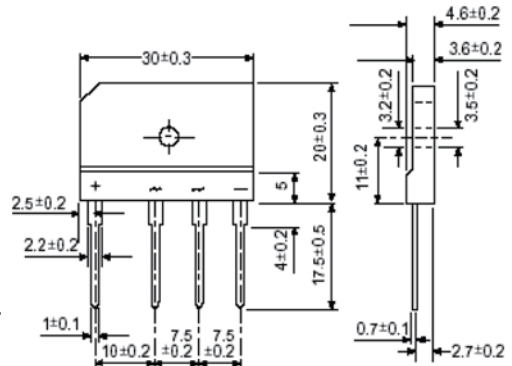


**Mechanical Data**

- ◆ Case: GBJ(5S)  
Epoxy meets UL-94V-0 Flammability rating
- ◆ Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length,  
5lbs.(2.3kg) tension
- ◆ Polarity: As marked on body
- ◆ Mounting Torque: 10 cm·kg (8.8 inches·lbs) max.
- ◆ Recommended Torque: 5.7cm·kg (5 inches·lbs)

**Typical Applications**

General purpose use in ac-to-dc bridge full wave rectification for Switching Power Supply, Home Appliances, Office Equipment, Industrial Automation applications



Package outline dimensions in millimeters

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at T <sub>C</sub> =110°C T <sub>A</sub> =25°C	I <sub>F(AV)</sub>				6.0 <sup>(1)</sup> 2.8 <sup>(2)</sup>				Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>				150.0				Amps
Rating for fusing (t<8.3ms)	I <sup>2</sup> t				93				A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 3.0A	V <sub>F</sub>				1.05				Volt
Maximum DC reverse current at rated DC blocking voltage per leg T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>				10 250				µA
Typical thermal resistance per leg	R <sub>JA</sub> <sup>(1)</sup> R <sub>JC</sub> <sup>(1)</sup>				26 <sup>(2)</sup> 3.4 <sup>(1)</sup>				°C/W
Dielectric strength (Therm nals to case, AC 1 m nute)	V <sub>ISO</sub>				2500				Volts
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>				-55 to +150				°C

- Notes**
1. Unit case mounted on 9.5x9.5x0.15cm thick Al plate heatsink
  2. Units mounted on P.C.B. with 0.5 x 0.5" (13 x 13 mm) copper pads and 0.375" (9.5 mm) lead length
  3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

## RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

