

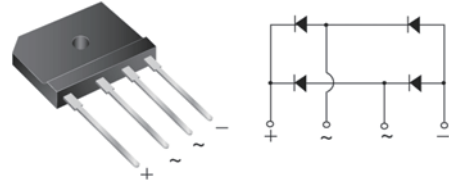


GLASS PASSIVATED CHIP SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage 50 ~ 1000 Volts , Forward Current 6.0 Amperes

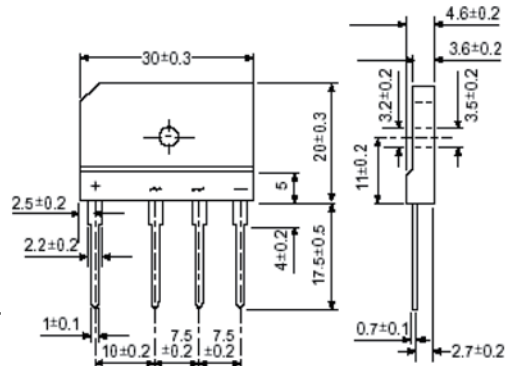
Features

- ◆ 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_{RMS}
- ◆ 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)



Package outline dimensions in millimeters

Typical Applications

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

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_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at $T_C=110^{\circ}C$ $T_A=25^{\circ}C$	$I_{F(AV)}$				6.0 ⁽¹⁾				Amps
					2.8 ⁽²⁾				
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				150.0				Amps
Rating for fusing (t<8.3ms)	I^2t				93				A ² sec
Maximum instantaneous forward voltage drop per leg at 3.0A	V_F				1.05				Volt
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R				10				uA
					250				
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JC}$				26 ⁽²⁾				°C/W
					3.4 ⁽¹⁾				
Dielectric strength (Therm nals to case, AC 1 m nute)	V_{ISO}				2500				Volts
Operating junction and storage temperature range	T_J, T_{STG}				-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)

