



YEA SHIN TECHNOLOGY CO., LTD

GBL4005 THRU GBL410

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER



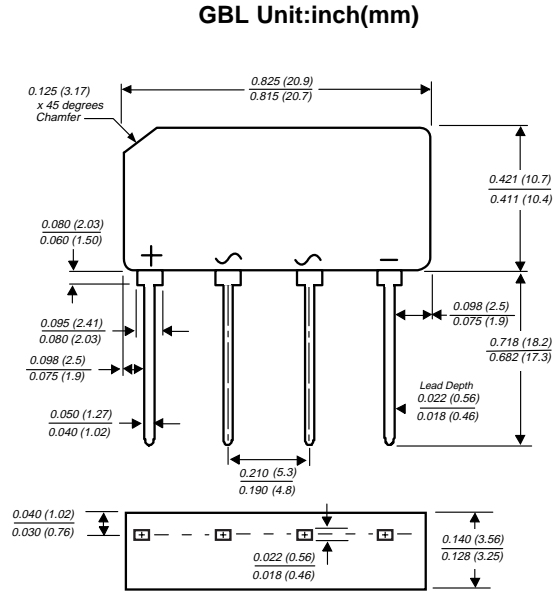
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- High case dielectric strength
- Typical IR less than 0.1mA
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic body over passivated junctions
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any
- Weight: 0.071 ounce, 2.0 grams



Polarity shown on front side of case: positive lead by beveled corner

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOLS	GBL 4005	GBL 401	GBL 402	GBL 404	GBL 406	GBL 408	GBL 410	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward TC=50°C (NOTE 1) rectified output current at TA=40°C (NOTE 2)	I(AV)				4.0	3.0			Amps
Peak forward surge current, single half sine-wave superimposed on rated load (JEDEC Method) TJ=25°C	IFSM				150.0				Amps
Rating for fusing (t<8.3ms)	I ² t				93.0				A ² S
Maximum instantaneous forward drop per leg at 4.0 A	VF				1.0				Volts
Maximum DC reverse current at rated TA=25°C DC blocking voltage per leg TA=125°C	IR				5.0	500.0			uA
Typical junction capacitance per leg (NOTE 3)	CJ		95.0				40.0		pF
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	R JA R JL				22.0	3.5			/W
Operating junction storage and temperature range	TJ, TSTG				-55 to +150				

NOTES:

- Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
- Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x12mm) copper pads
- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

DEVICE CHARACTERISTICS

GBL4005 THRU GBL410

Fig. 1 – Derating Curves Output Rectified Current

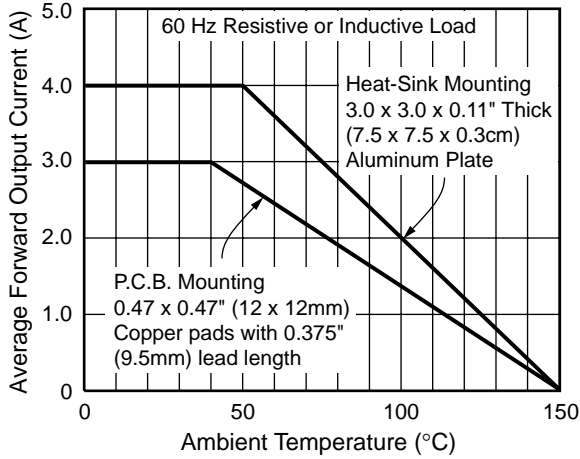


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

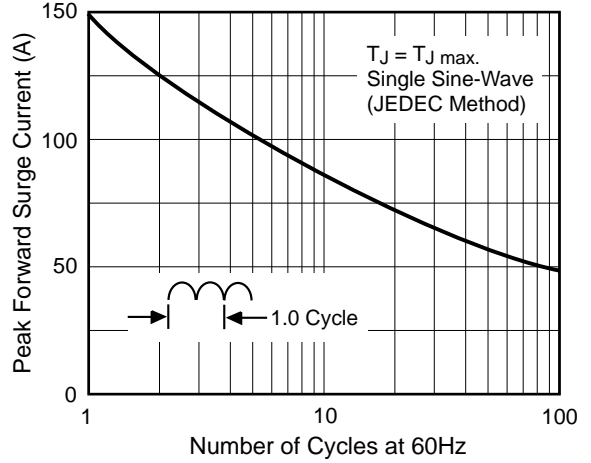


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

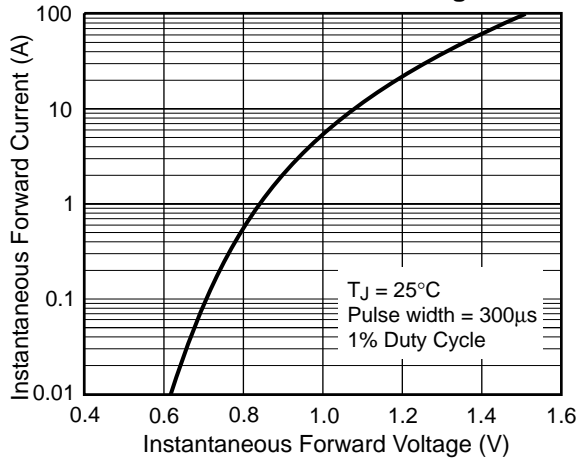


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

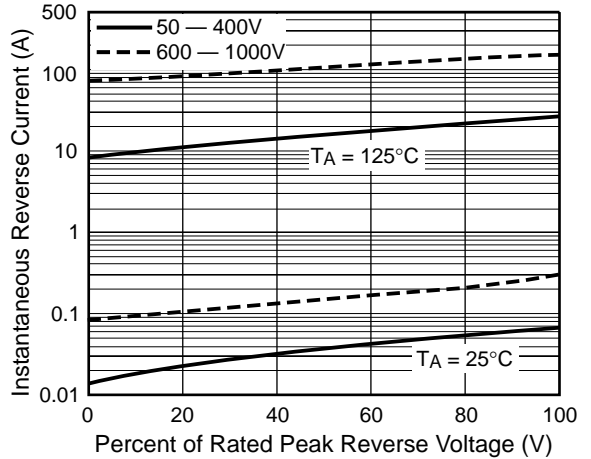


Fig. 5 – Typical Junction Capacitance Per Leg

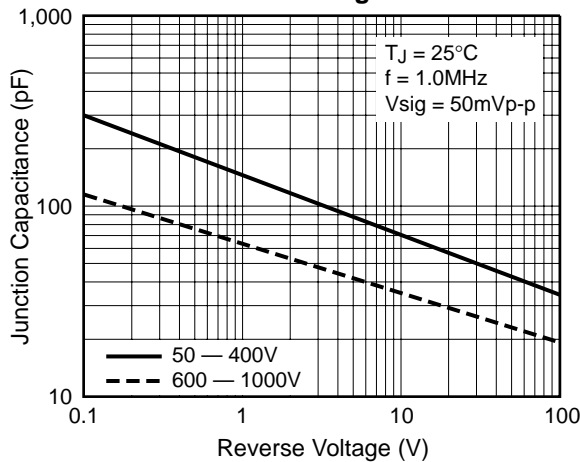


Fig. 6 – Typical Transient Thermal Impedance Per Leg

