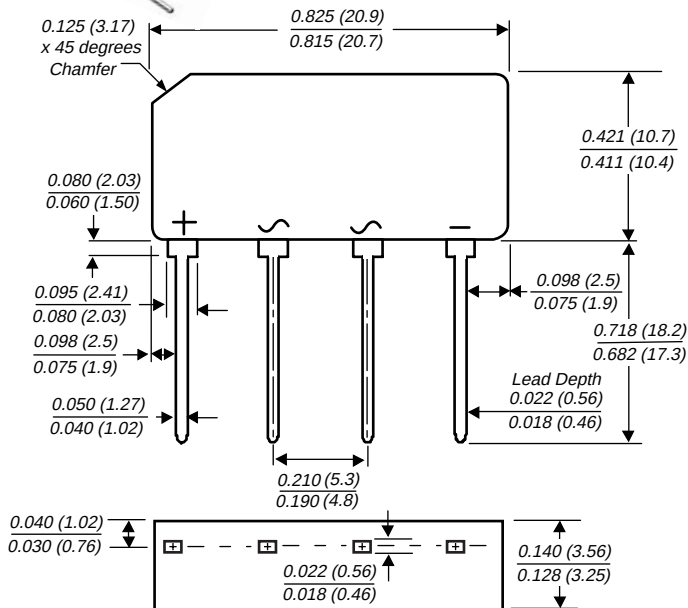




Glass Passivated Single-Phase Bridge Rectifiers

Case Type GBL

Reverse Voltage 50 and 1000V
Forward Current 4.0A



Polarity shown on front side of case, positive lead beveled corner.

Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- Glass passivated chip junction
- High case dielectric strength
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

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 oz., 2.0 g

Packaging codes/options:

1/400 ea. per Bulk Tray Stack

Maximum Ratings & Thermal Characteristics

Parameter	Symbol	GBLA 005	GBLA 01	GBLA 02	GBLA 04	GBLA 06	GBLA 08	GBLA 10	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at T _C = 50°C Note 1 T _A = 40°C Note 2	I _{F(AV)}	4.0 3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	120							A
Rating for fusing (t < 8.3ms)	I ² t	60							A ² sec
Typical thermal resistance per leg	R _{θJA} R _{θJL}	47 10							°C/W
Operating junction storage and temperature range	T _J ,T _{STG}	-55 to +150							°C

Electrical Characteristics

Parameter	Symbol	GBLA 005	GBLA 01	GBLA 02	GBLA 04	GBLA 06	GBLA 08	GBLA 10	Unit	
Maximum instantaneous forward drop per leg at 4.0A	V _F	1.0								V
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°C	I _R	5.0 500								μA

Notes: (1) Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Aluminum plate

(2) Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x12mm) copper pads

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

Fig. 1 – Derating Curves Output Rectified Current

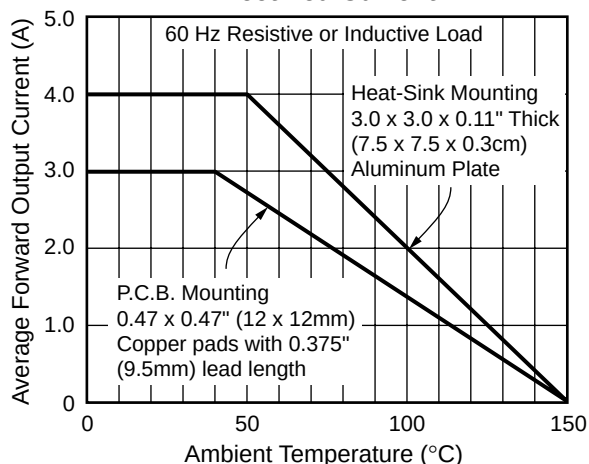


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

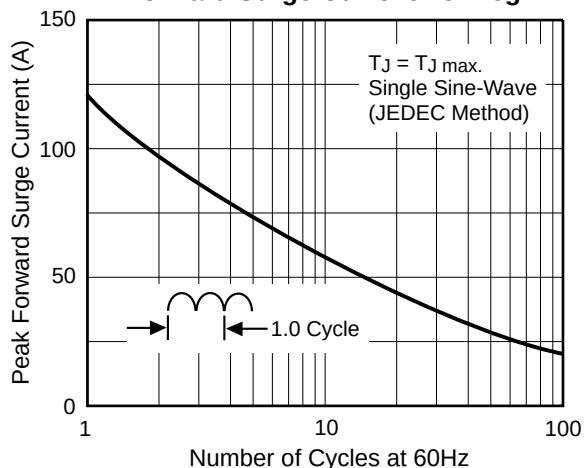


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

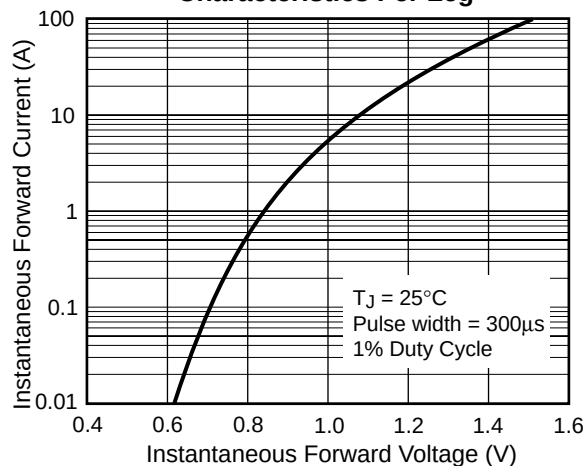


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

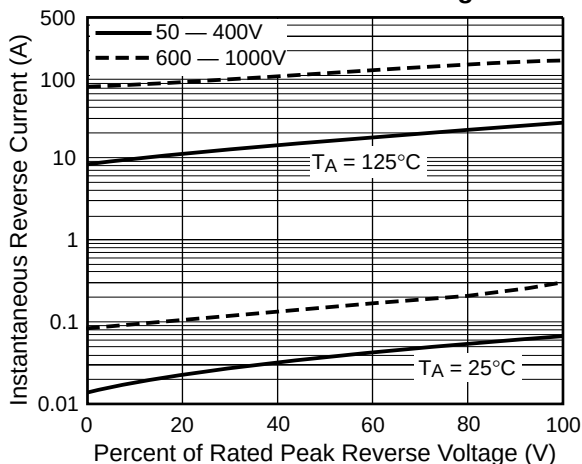


Fig. 5 – Typical Junction Capacitance Per Leg

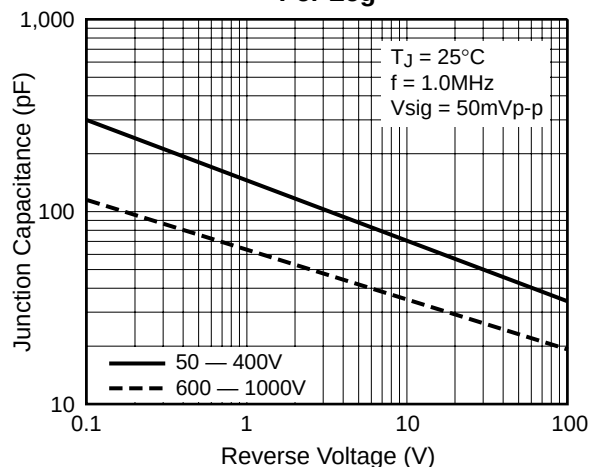


Fig. 6 – Typical Transient Thermal Impedance Per Leg

