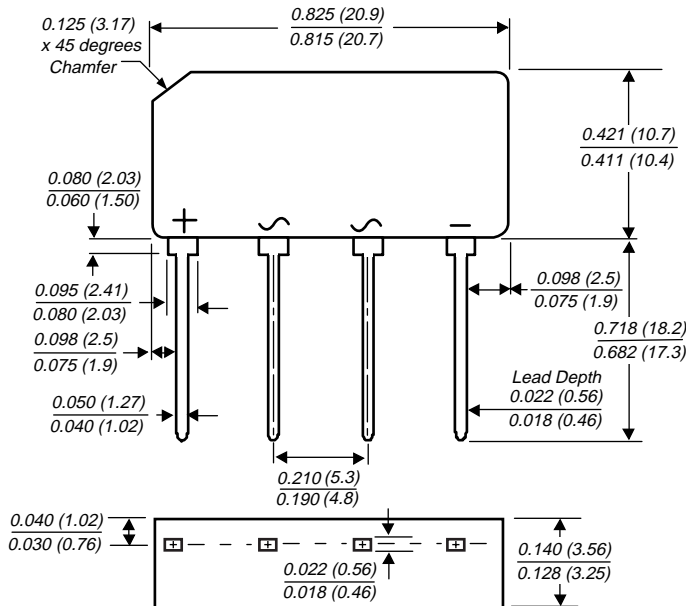




**Glass Passivated Single-Phase
Bridge Rectifier**

Case Type GBL

Reverse Voltage 50 and 1000 V
Forward Current 4.0 A



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
- Typical I_R less than $0.1\mu A$
- High surge current capability
- Ideal for printed circuit boards

Mechanical Data

Case: Molded plastic body over passivated junctions
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
Mounting Position: Any
Weight: 0.071 oz., 2.0 g
Packaging codes/options:
 1/400 EA. per Bulk Tray Stack

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 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 $T_C=50^\circ C$ and $T_A=40^\circ C$	$I_{F(AV)}$	4.0 ⁽¹⁾ 3.0 ⁽²⁾						A	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	I_{FSM}	150						A	
Rating for fusing ($t < 8.3ms$)	I^2t	93						A ² sec	
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$	22 ⁽¹⁾ 3.5 ⁽²⁾						°C/W	
Operating junction storage and temperature range	T_J, T_{STG}	-55 to +150						°C	

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward drop per leg at 4.0 Amperes	V_F	1.00						V
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ C$ and $T_A=125^\circ C$	I_R	5.0 500						μA
Typical junction capacitance per leg at 4.0V, 1MHz	C_J	95				40		pF

Notes: (1) Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
 (2) Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads



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

Fig. 1 – Derating Curves Output Rectified Current

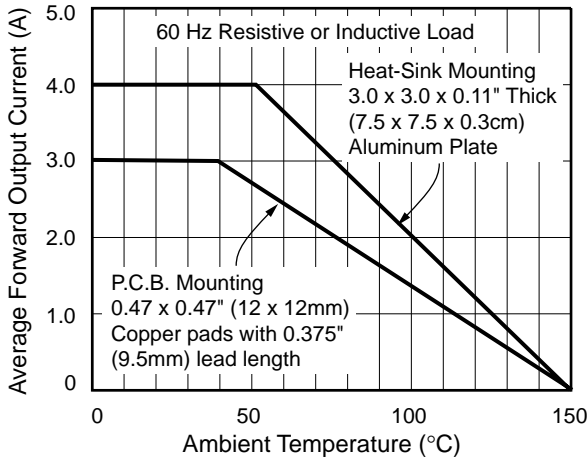


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

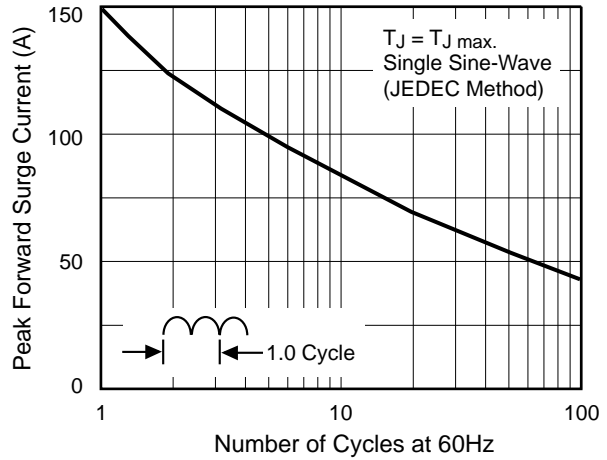


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

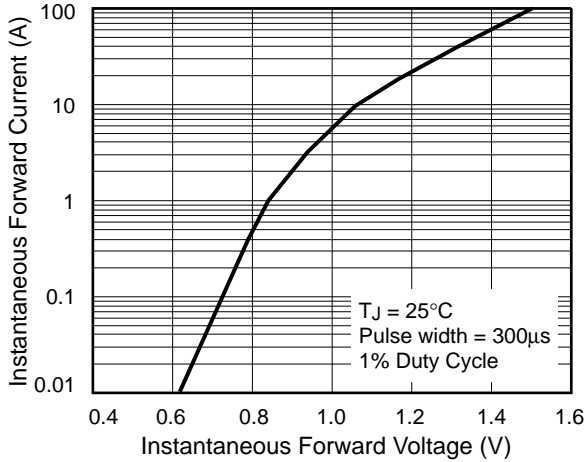


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

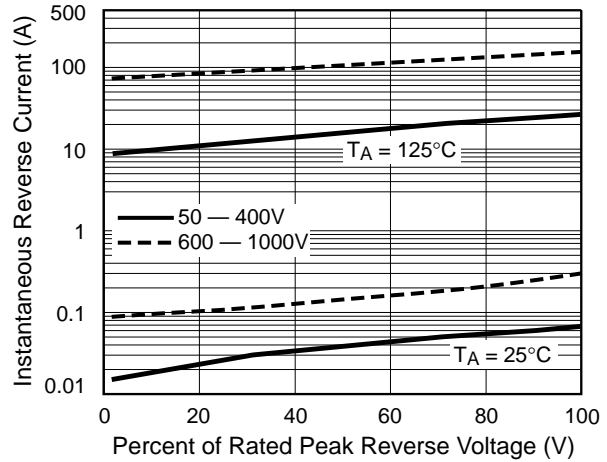


Fig. 5 – Typical Junction Capacitance Per Leg

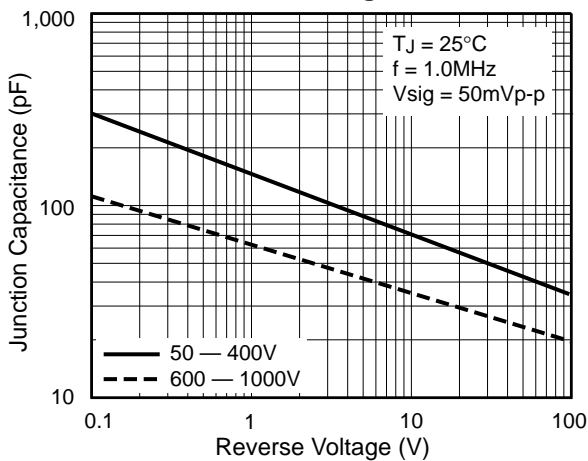


Fig. 6 – Typical Transient Thermal Impedance Per Leg

