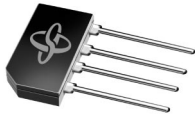
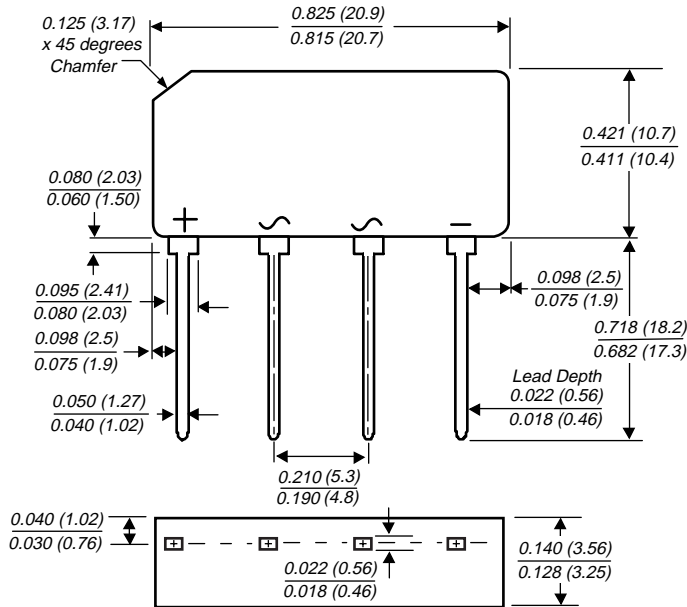


## Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V  
Forward Current 4.0 A



Case Type GBL



Polarity shown on front side of case, positive lead beveled corner.  
If preferred, marking may be on reverse side of case.

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
- 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 ounce, 2.0 grams

### Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 10	UNITS	
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 $T_C=50^\circ C$ (NOTE 1) $T_A=40^\circ C$ (NOTE 2)	$I_{F(AV)}$	4.0						3.0		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 <sup>2</sup> sec
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	22 3.5								°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.

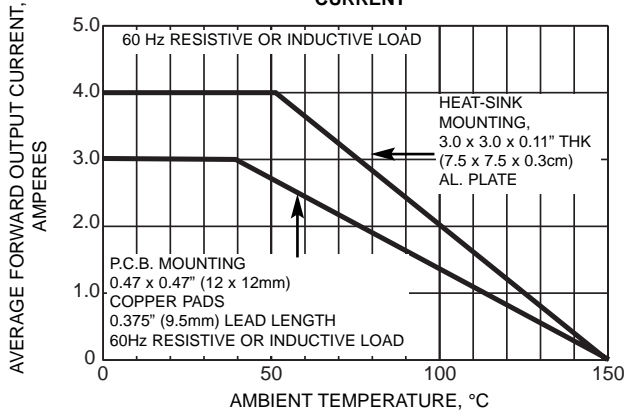
	SYMBOLS	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 10	UNITS	
Maximum instantaneous forward drop per leg at 4.0 Amperes	$V_F$	1.1								V
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ C$ $T_A=125^\circ C$	$I_R$	5.0 500								$\mu A$
Typical junction capacitance per leg at 4.0V, 1MHz	$C_J$	95				40				pF

**Notes:**

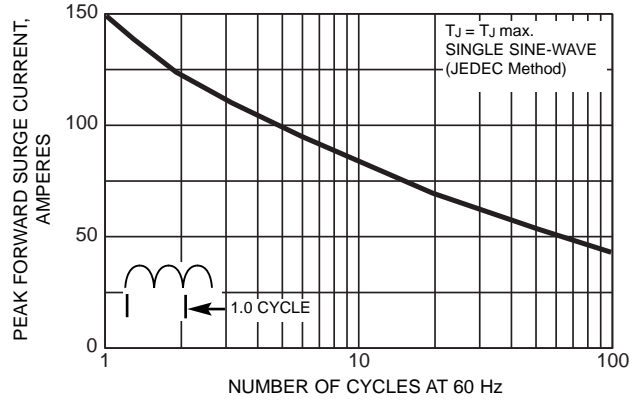
- (1) Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. plate
- (2) Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads

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

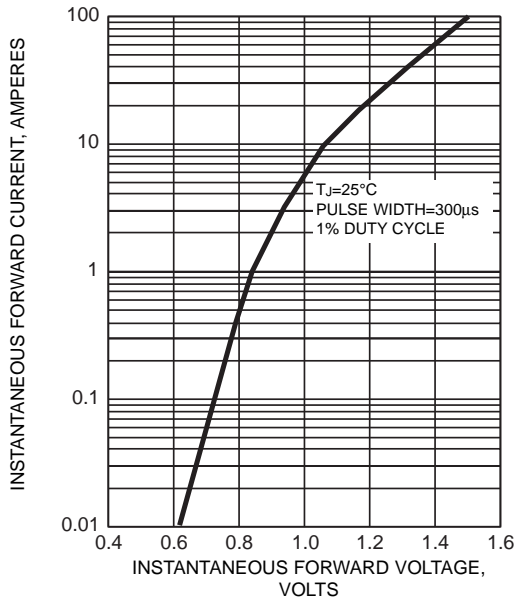
**FIG. 1 - DERATING CURVES OUTPUT RECTIFIED CURRENT**



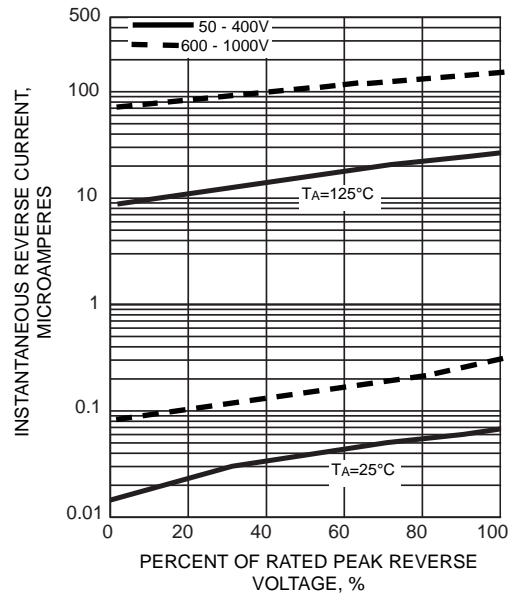
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



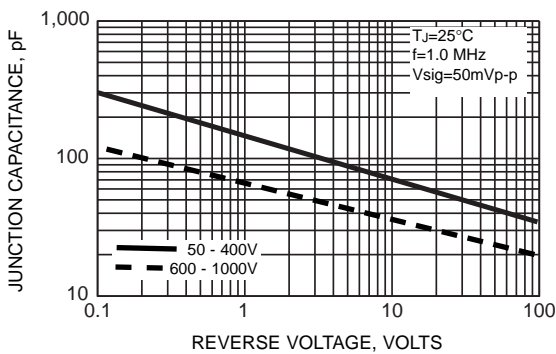
**FIG. 3 - TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG**

