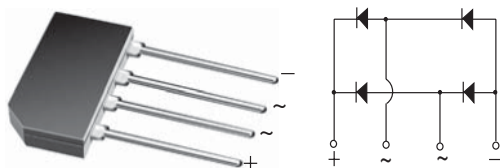


Glass Passivated Single-Phase Bridge Rectifier



Case Type GBL

FEATURES

- UL Recognition file number E54214
- Ideal for printed circuit boards
- High surge current capability
- Typical I_R less than 0.1 μA
- High case dielectric strength
- Solder Dip 260 °C, 40 seconds
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



MAJOR RATINGS AND CHARACTERISTICS

$I_{F(AV)}$	4 A
V_{RRM}	50 V to 1000 V
I_{FSM}	150 A
I_R	5 μA
V_F	1.0 V
T_J max.	150 °C

TYPICAL APPLICATIONS

General purpose use in ac-to-dc bridge full wave rectification for Monitor, TV, Printer, SMPS, Adapter, Audio equipment, and Home Appliances application.

MECHANICAL DATA

Case: GBL

Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D

Polarity: As marked on body

MAXIMUM RATINGS ($T_A = 25$ °C unless otherwise noted)

PARAMETER	SYMBOL	GBL005	GBL01	GBL02	GBL04	GBL06	GBL08	GBL10	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 $T_A = 40$ °C	$I_{F(AV)}$	4.0 ⁽¹⁾ 3.0 ⁽²⁾							A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	150							A
Rating for fusing ($t < 8.3$ ms)	I^2t	93							A ² sec
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150							°C

Note:

(1) Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3 cm) Al. plate

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

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	GBL005	GBL01	GBL02	GBL04	GBL06	GBL08	GBL10	UNIT
Maximum instantaneous forward voltage drop per leg	at 4.0 A	V_F	1.00							V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_A = 25\text{ }^{\circ}\text{C}$ $T_A = 125\text{ }^{\circ}\text{C}$	I_R	5.0 500							μA
Typical junction capacitance per leg	at 4.0 V, 1 MHz	C_J	95				40			pF

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GBL005	GBL01	GBL02	GBL04	GBL06	GBL08	GBL10	UNIT
Typical thermal resistance per leg	R _{θJA} R _{θJC}	22 ⁽²⁾ 3.5 ⁽¹⁾							°C/W

Note:

(1) Unit mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3 cm) Al. plate

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

ORDERING INFORMATION				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
GBL06-E3/45	2.18	45	20	Tube
GBL06-E3/51	2.18	51	400	Anti-static PVC Tray

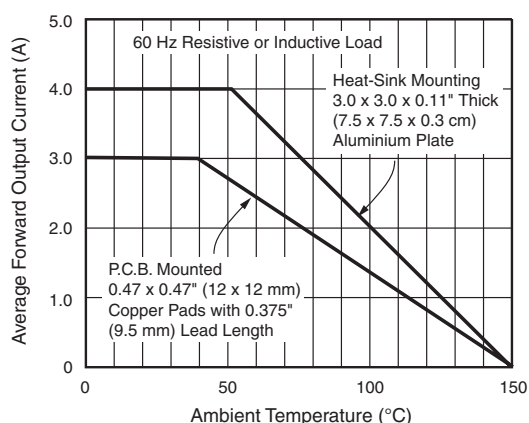
RATINGS AND CHARACTERISTICS CURVES($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Figure 1. Derating Curves Output Rectified Current

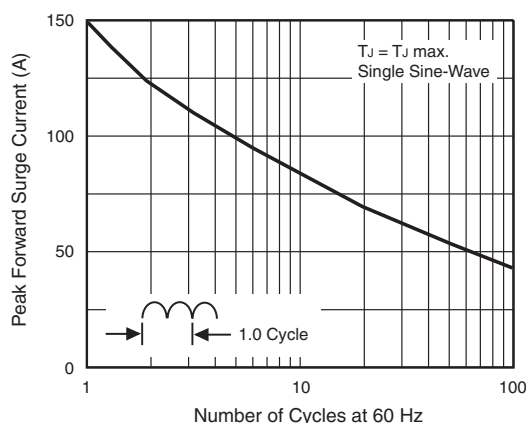


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

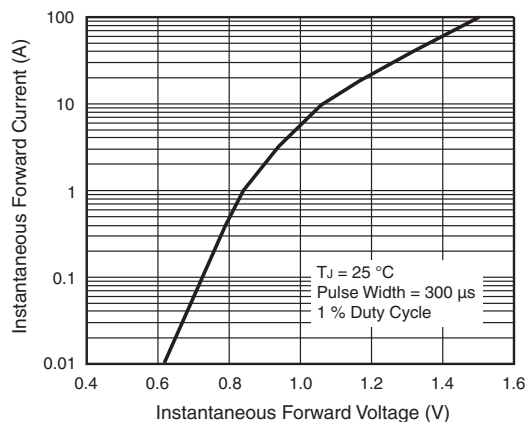


Figure 3. Typical Forward Voltage Characteristics Per Leg

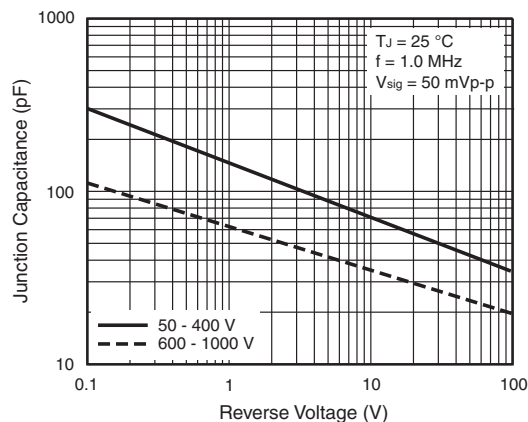


Figure 5. Typical Junction Capacitance Per Leg

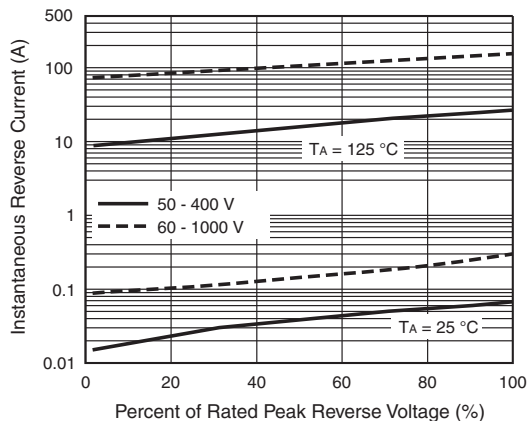


Figure 4. Typical Reverse Characteristics Per Leg

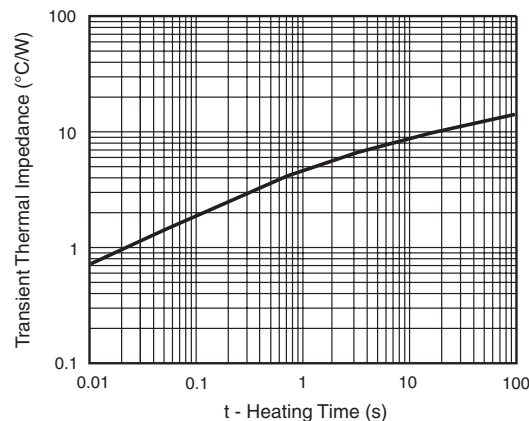
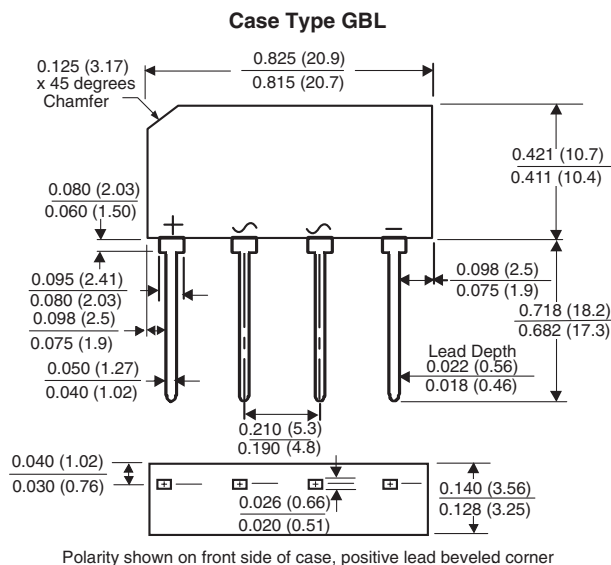


Figure 6. Typical Transient Thermal Impedance Per Leg

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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