

Bridge Rectifier

GBL01

100V / 4A

DATASHEET

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OEM – General Semiconductor

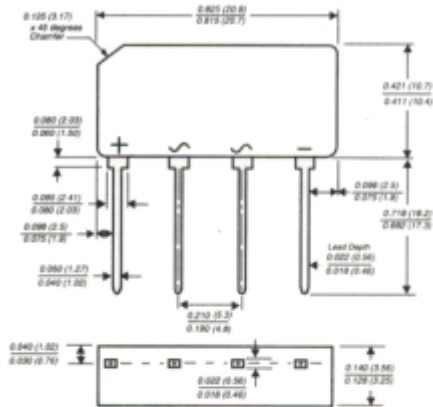
Source: General Semiconductor Databook 1998

GBL005 THRU GBL10

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

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

Case Type GBL



Polarity shown on front side of case; positive lead by 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 junctions
- ◆ 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, 5 lbs. (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 AND 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 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 rectified output current at $T_C=50^\circ C$ (NOTE 1) $T_A=40^\circ C$ (NOTE 2)	$I_{(AV)}$	4.0				3.0			Amps
Peak forward surge current, single half sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	I_{FSM}	150.0							Amps
Rating for fusing ($t < 8.3ms$)	IFt	93.0							A ² sec
Maximum instantaneous forward drop per leg at 4.0 Amperes	V _F	1.1							Volts
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				500.0			μA
Typical junction capacitance per leg (NOTE 3)	C _J	95.0				40.0			pF
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	R _{θJA} R _{θJL}	22.0				3.5			°C/W
Operating junction storage and temperature range	T _J , T _{STG}	-55 to +150							°C

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
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTICS CURVES GBL005 THRU GBL10

