

Bridge Rectifier

GBPC108

800V / 4A

DATASHEET

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OEM – General Semiconductor

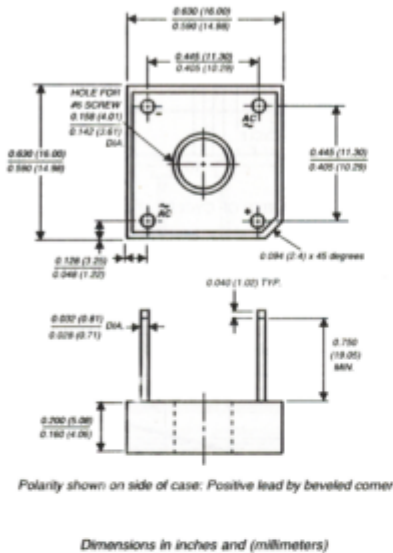
Source: General Semiconductor Databook 1998

GBPC1005 THRU GBPC110

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

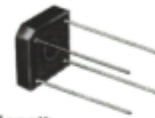
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

Case Style GBPC1



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL listed under Recognized Component Index, file number E54214
- ◆ Glass passivated chip junctions
- ◆ High case dielectric with standing voltage of 1500 VRMS
- ◆ Typical I_n less than 0.1µA
- ◆ 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 (NOTE 1)
Mounting Torque: 5.0 in. - lb. max.
Weight: 0.1 ounce, 2.8 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS bridge input voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at T _C =60°C (NOTE 2) T _A =25°C (NOTE 3)	I _(AV)	3.0 2.0						Amps	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _C =60°C	I _{FSM}	60.0						Amps	
Rating for fusing (t<8.3ms)	I _t	15.0						A ² sec	
Maximum instantaneous forward voltage drop per leg at 1.5 Amperes	V _F	1.0						Volts	
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A =125°C	I _R	5.0 500.0						µA	
Typical junction capacitance per leg (NOTE 4)	C _J	21.0						pF	
Typical thermal resistance per leg (NOTE 2)	R _{θJA} R _{θJC}	12.0 8.0						°C/W	
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150						°C	

NOTES:

- (1) Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw
- (2) Unit mounted on 4.0 x 4.0 x 0.11" thick (10.5 x 10.5 x 0.3cm) Al. Plate
- (3) Unit mounted on P.C.B. at 0.375" (9.5mm) lead length with 0.5 x 0.5" (12 x 12mm) copper pads
- (4) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTICS CURVES GBPC1005 THRU GBPC110

