



SINGLE PHASE BRIDGE RECTIFIER

GBPC1005 THRU GBPC110

VOLTAGE RANGE
CURRENT

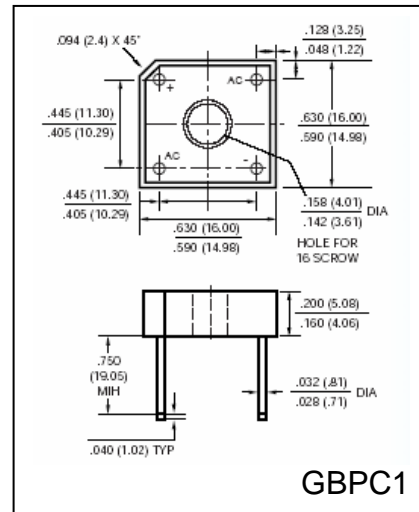
50 to 1000 Volts
3.0 Ampere

FEATURES

- Plastic package has UL flammability classification 94V-0
- High forward surge capacity
- Glass passivated chip junction
- Typical I_R less than $1\mu A$
- High case dielectric with standing voltage of $1500V_{RMS}$
- High temperature soldering guaranteed:
 $260^{\circ}C / 10$ seconds

MECHANICAL DATA

- Case: Molded plastic
- Terminal: Plated leads solderable per MIL-STD-750 method 2026
- Polarity: Polarity symbols marked on case
Mounting: Any position, see note 1
- Weight: 0.1 ounce, 2.8 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at $25^{\circ}C$ ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Current,	At $T_c = 60^{\circ}C$ (Note 2)	3.0							Amps
	At $T_a = 25^{\circ}C$ (Note 3)	2.0							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	60							Amps
Rating for Fusing ($t < 8.3mS$)	I^2t	15							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 1.5A	V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$T_A = 25^{\circ}C$	5.0							μA
	$T_A = 100^{\circ}C$	500							μA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_j	21							pF
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JC}$	8.0							$^{\circ}C/W$
	$R_{\theta JA}$	12							$^{\circ}C/W$
Operating Junction Temperature	T_J	(-55 to +150)							$^{\circ}C$
Storage Temperature Rang	T_{STG}	(-55 to +150)							$^{\circ}C$

Notes:

1. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat transfer
2. Unit mounted on $4.0'' \times 4.0'' \times 0.11''$ (10.5cm x 10.5cm x 0.3cm) AL plate
3. Unit mounted on PCB at $0.375''$ (9.5mm) lead with $0.5'' \times 0.5''$ (12mm x 12mm) copper pads

RATINGS AND CHARACTERISTIC CURVES GBPC1005 THRU GBPC110

