



SINGLE PHASE BRIDGE RECTIFIER

GBPC6005 THRU GBPC610

VOLTAGE RANGE
CURRENT

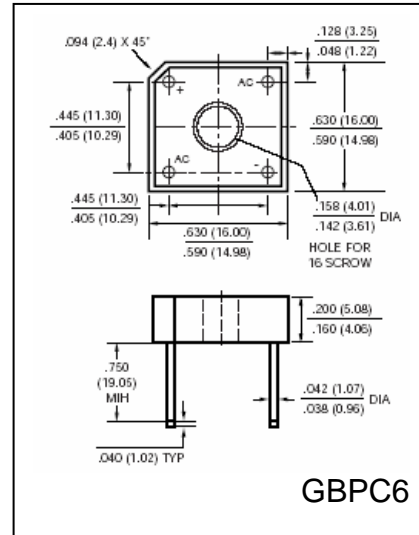
50 to 1000 Volts
6.0 Ampere

FEATURES

- Plastic package has UL flammability classification 94V-0
- High forward surge capacity
- Glass passivated chip junction
- High case dielectric with standing voltage of 1500V_{RMS}
- High temperature soldering guaranteed:
260°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°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	GBPC 6005	GBPC 601	GBPC 602	GBPC 604	GBPC 606	GBPC 608	GBPC 610	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 = 50°C (Note 2)	6.0							Amps
	At T _a = 40°C (Note 3)	3.0							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	175							Amps
Rating for Fusing (t<8.3mS)	I ² t	127							A ² s
Maximum Instantaneous Forward Voltage drop per Bridge element 3.0A	V _F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I _R	5.0							μA
		500							μA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	186				90			pF
Typical Thermal Resistance per leg (Note 1)	R _{θJl}	7.3							°C/W
	R _{θJa}	22							°C/W
Operating Junction Temperature Range	T _J	(-55 to +150)							°C
Storage Temperature Range	T _{STG}	(-55 to +150)							°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" x 4.0" x 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" x 0.5" (12mm x 12mm) copper pads



RATINGS AND CHARACTERISTIC CURVES GBPC6005 THRU GBPC610

