



GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

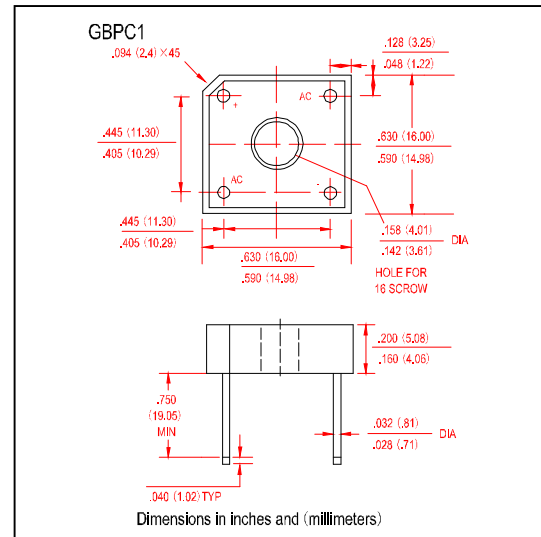
GBPC1005 THRU GBPC110

FEATURES

- Plastic package has underwriters laboratory
- Flammability classification 94V-0
- Glass passivated ship junction
- High case dielectric with standing voltage of 1500V_{RMS}
- Typical I_r less than 0.1 μ A
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension

MECHANICAL DATA

- Case: Epoxy, Molded Plastic body over passivated junctions
- Terminal: Plated leads solderable per MIL-STD-750 method 2026
- Mounting position: Any (Note 1)
- Weight: 0.1 ounce, 2.8 gram



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 | 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 output current at | T _C =60°C (Note2) | 3.0 | | | | | | | Amps |
| | T _A =25°C (Note3) | 2.0 | | | | | | | |
| Peak Forward Surge Current single half sine-wave superimposed on rated load (JEDEC method) T _C =60°C | I _{FSM} | 60 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage Drop Per element at 1.5A | V _F | 1.0 | | | | | | | Volts |
| Rating for Fusing (t<8.3ms) | I ² t | 127 | | | | | | | A ² s |
| Maximum Average Reverse Current at rated DC Blocking Voltage | T _A = 25°C | 5.0 | | | | | | | μA |
| | T _A = 125°C | 500 | | | | | | | |
| Typical Thermal Resistance per leg (NOTE 1) | R _{θJL} | 8.0 | | | | | | | °C/W |
| | R _{θJA} | 12 | | | | | | | |
| Operating and Storage Temperature Range | T _J , 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 with #6 screw.
 2. Unit mounted 1.0"×4.0"×0.11" thick (10.5×10.5×0.3cm) Al. Plate
 3. Unit mounted on P.C.B. at 0.375" (9.5mm) lead with 0.5"×0.5" (12×12mm) copper pads



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RATINGS AND CHARACTERISTICS CURVES GBPC1005 THRU GBPC110

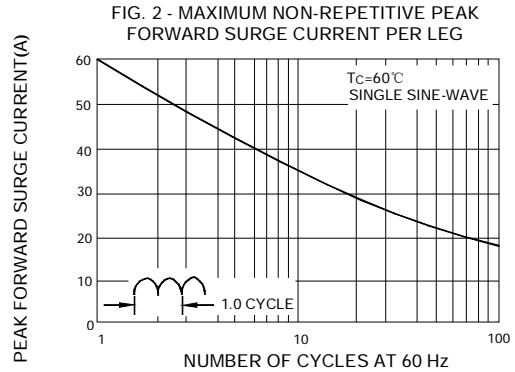
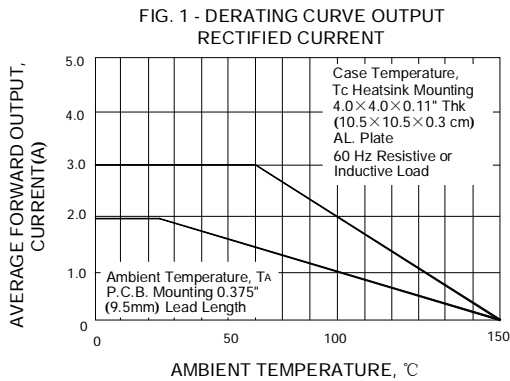


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

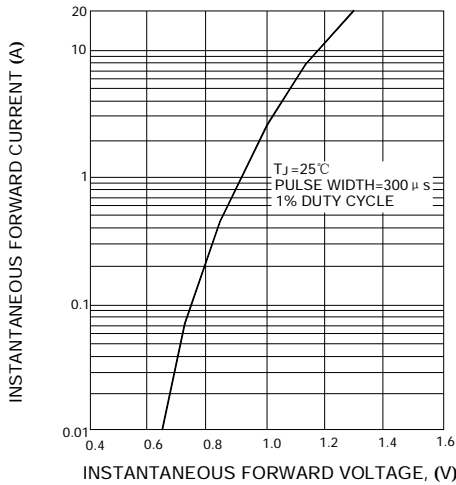


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

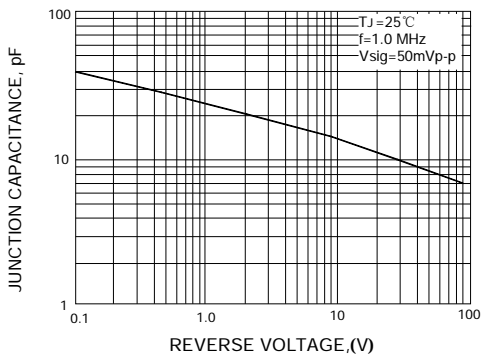


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

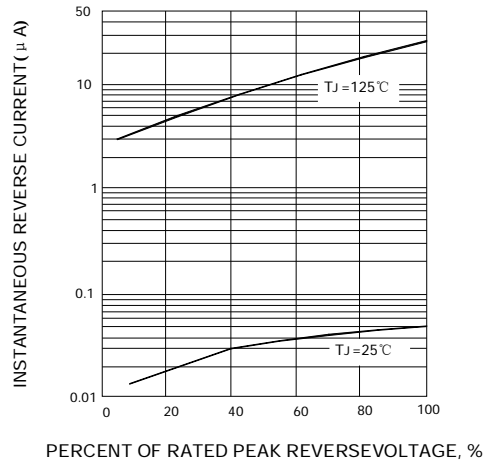


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

