

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

GBPC8005 THRU GBPC810

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 8.0 Amperes

FEATURES

- * Surge overload rating: 240 Amperes peak
- * Low forward voltage drop
- * Small size: simple installation
- * Glass passivated junction

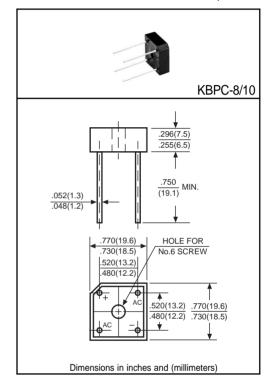
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 6.1 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



| | | | GBPC | GBPC | GBPC | GBPC | GBPC | GBPC | GBPC | |
|---|-------------|--------|--------------|------|------|------|------|------|-------|---------|
| | | SYMBOL | 8005 | 801 | 802 | 804 | 806 | 808 | 810 | UNITS |
| Maximum Recurrent Peak Reverse Voltage | | VRRM | 50 | 100 | 200 | 400 | 800 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | | VRMS | 35 | 70 | 140 | 280 | 420 | 580 | 700 | Volts |
| Maximum DC Blocking Voltage | | VDC | 50 | 100 | 200 | 400 | 800 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current at Tc = 50° | | lo | 8.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | | IFSM | 240 | | | | | | Amps | |
| Maximum Forward Voltage Drop per element at 4.0A DC | | VF | 1.1 | | | | | | Volts | |
| Maximum DC Reverse Current at Rated | @TA = 25°C | | 10 | | | | | | | uAmps |
| DC Blocking Voltage per element | @Tc = 100°C | - IR | 1000 | | | | | | | uziiips |
| Operating Temperature Range | | TJ | -55 to + 125 | | | | | | | °C |
| Storage Temperature Range | | Тѕтс | -55 to + 150 | | | | | | °C | |

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

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^{2.} Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (GBPC8005 THRU GBPC810)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

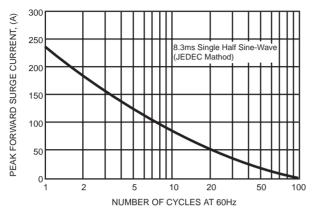


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

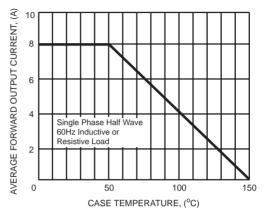


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

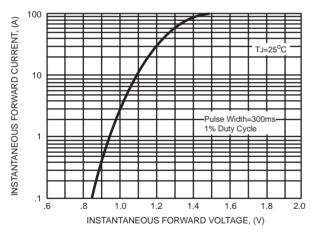
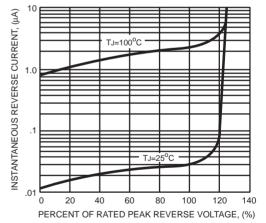


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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