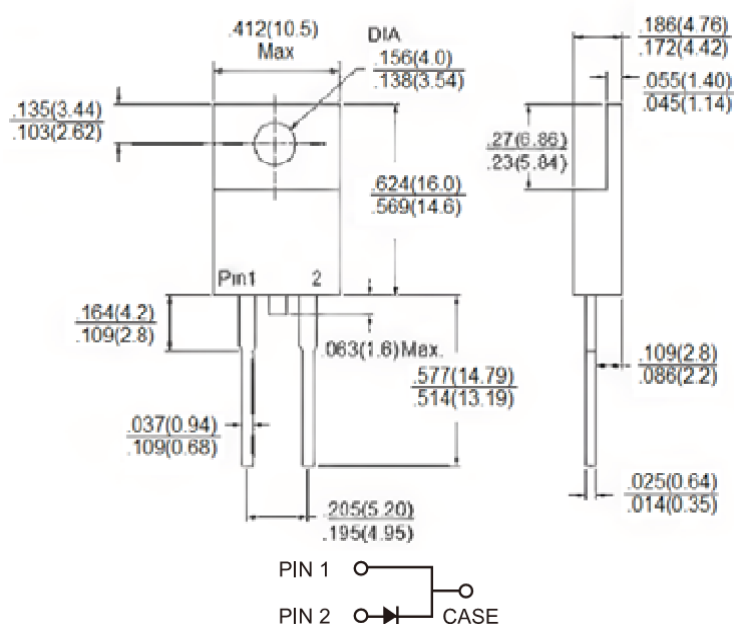




**GPA801 - GPA807**

### 8.0 AMPS. Glass Passivated Rectifiers TO-220AC



## Features

- ✧ Glass passivated chip junction
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

## Mechanical Data

- ✧ Cases: TO-220AC Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams

**Dimensions in inches and (millimeters)**



### Marking Diagram

GPA80X = Specific Device Code

G = Green Compound

Y = Year

WW = Work Week

## Maximum Ratings and Electrical Characteristics

Rating 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%

| Type Number                                                                                        | Symbol             | GPA 801       | GPA 802 | GPA 803 | GPA 804 | GPA 805 | GPA 806 | GPA 807 | Units |
|----------------------------------------------------------------------------------------------------|--------------------|---------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | V <sub>RRM</sub>   | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum RMS Voltage                                                                                | V <sub>RMS</sub>   | 35            | 70      | 140     | 280     | 420     | 560     | 700     | V     |
| Maximum DC Blocking Voltage                                                                        | V <sub>DC</sub>    | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum Average Forward Rectified                                                                  | I <sub>F(AV)</sub> | 8             |         |         |         |         |         |         | A     |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I <sub>FSM</sub>   | 150           |         |         |         |         |         |         | A     |
| Maximum Instantaneous Forward Voltage (Note 1) @ 8 A                                               | V <sub>F</sub>     | 1.1           |         |         |         |         |         |         | V     |
| Maximum DC Reverse Current @ T <sub>A</sub> =25 °C                                                 | I <sub>R</sub>     | 5             |         |         |         |         |         |         | uA    |
| at Rated DC Blocking Voltage @ T <sub>A</sub> =125 °C                                              |                    | 100           |         |         |         |         |         |         |       |
| Typical Junction Capacitance (Note 2)                                                              | C <sub>j</sub>     | 50            |         |         |         |         |         |         | pF    |
| Typical Thermal Resistance                                                                         | R <sub>θJA</sub>   | 2.5           |         |         |         |         |         |         | °C/W  |
| Operating Temperature Range                                                                        | T <sub>J</sub>     | - 65 to + 150 |         |         |         |         |         |         | °C    |
| Storage Temperature Range                                                                          | T <sub>STG</sub>   | - 65 to + 150 |         |         |         |         |         |         | °C    |

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (GPA801 THRU GPA807)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

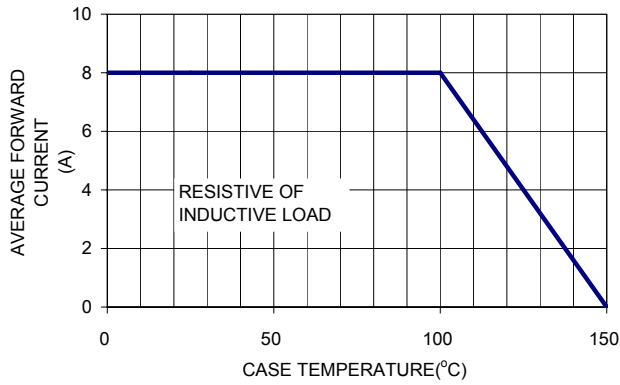


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

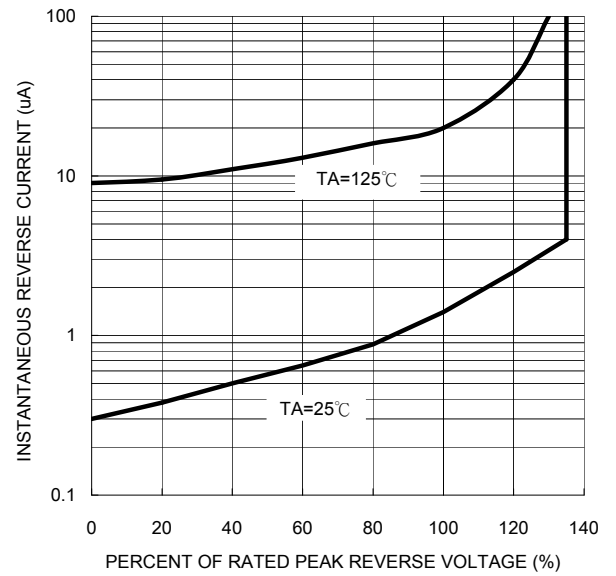


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

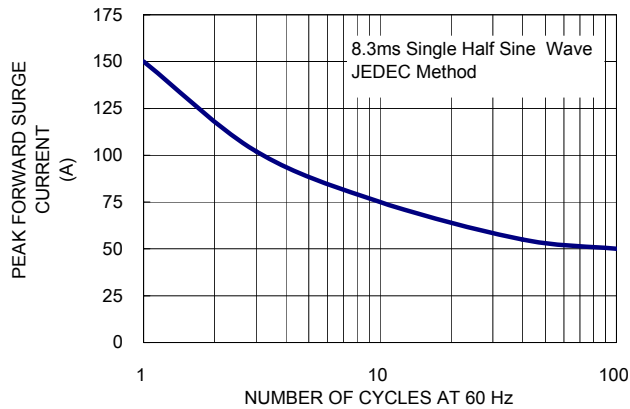


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

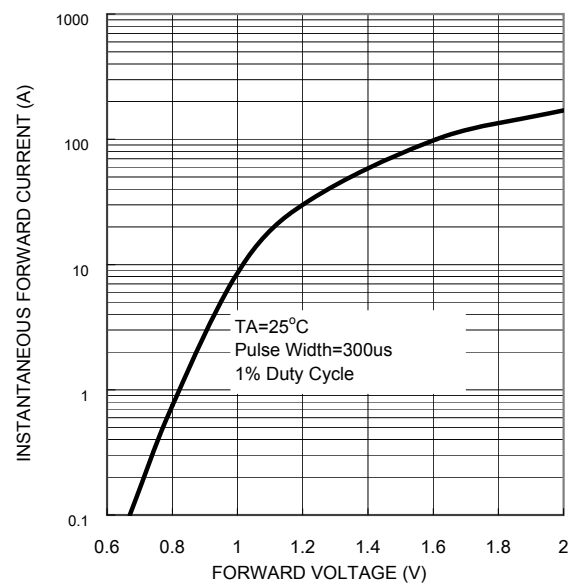
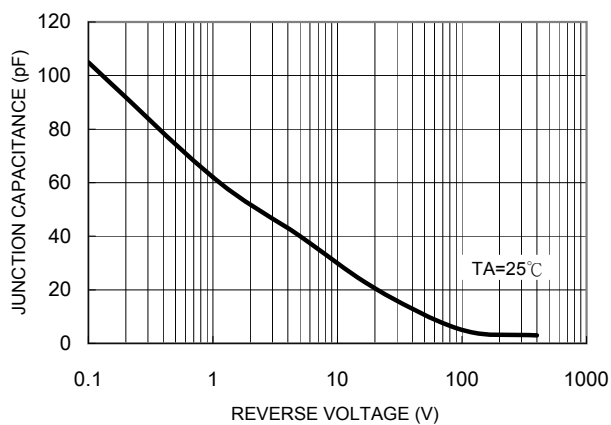


FIG. 4- TYPICAL JUNCTION CAPACITANCE



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