



## Glass Passivated Single Phase Bridge Rectifiers

**Reverse Voltage** 200 to 1000V  
**Forward Current** 35 Amp

### Features

- Glass passivated die construction
- Integrally molded heatsink provides Very low thermal resistance for Maximum heat dissipation
- The plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High temperature soldering guaranteed: 260°C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

### Mechanical Data

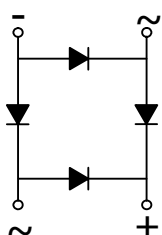
**Case:** Molded plastic case

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Marked on Body

**Mounting Position:** Any

**Circuit**



### Module Type

| TYPE      | VRRM  | VRSM  |
|-----------|-------|-------|
| GBPC3502A | 200V  | 300V  |
| GBPC3504A | 400V  | 500V  |
| GBPC3506A | 600V  | 700V  |
| GBPC3508A | 800V  | 900V  |
| GBPC3510A | 1000V | 1100V |

### Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

| Symbol           | Conditions                                                                                 | Values      | Units            |
|------------------|--------------------------------------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Maximum average forward output rectified current Tc =55°C                                  | 35          | A                |
| IFSM             | Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) | 400         | A                |
| i <sup>2</sup> t | Rating for fusing (t<8.3ms)                                                                | 660         | A <sup>2</sup> s |
| Visol            | a.c.50HZ;r.m.s.;1min                                                                       | 2500        | V                |
| RθJC             | Maximum thermal resistance <sup>(1)</sup>                                                  | 1.2         | °C/W             |
| Tj, TSTG         | Operating Junction and storage temperature range                                           | -55 to +150 | °C               |
| Weight           | Approximate Weight                                                                         | 15          | g                |

### Electrical Characteristics (TA = 25°C unless otherwise noted)

| Symbol | Conditions                                                                                 | Values     | Units |
|--------|--------------------------------------------------------------------------------------------|------------|-------|
| VF     | Maximum Instantaneous Forward Voltage per leg IFM =17.5A                                   | 1.1        | V     |
| IR     | Maximum DC reverse current at rated DC blocking voltage per leg<br>TA = 25°C<br>TA = 125°C | 5.0<br>500 | μA    |

Notes: (1) Unit case mounted on Al plate heatsink

(2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M5 screw

## Performance Curves

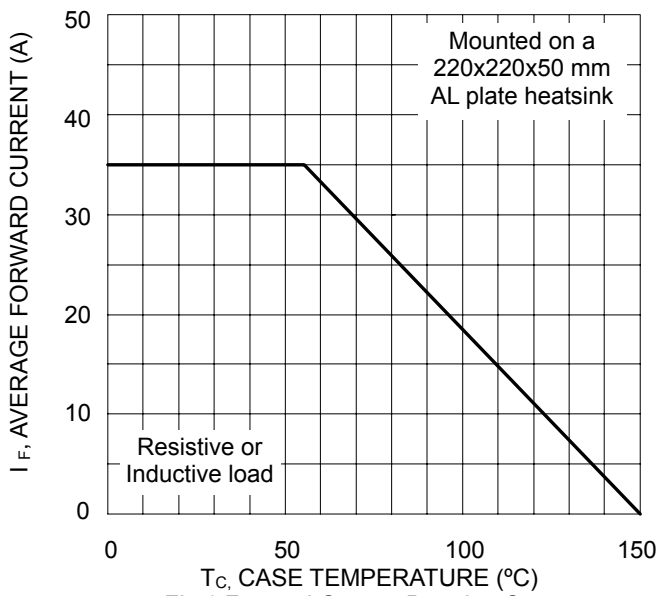


Fig.1 Forward Current Derating Curve

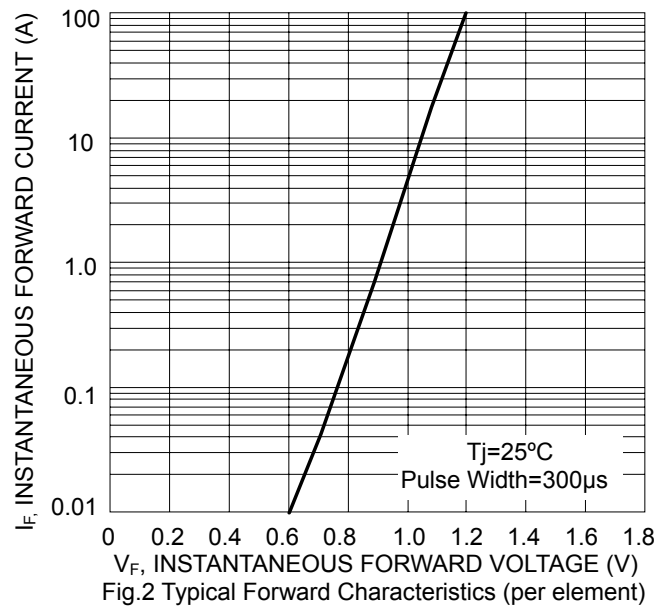


Fig.2 Typical Forward Characteristics (per element)

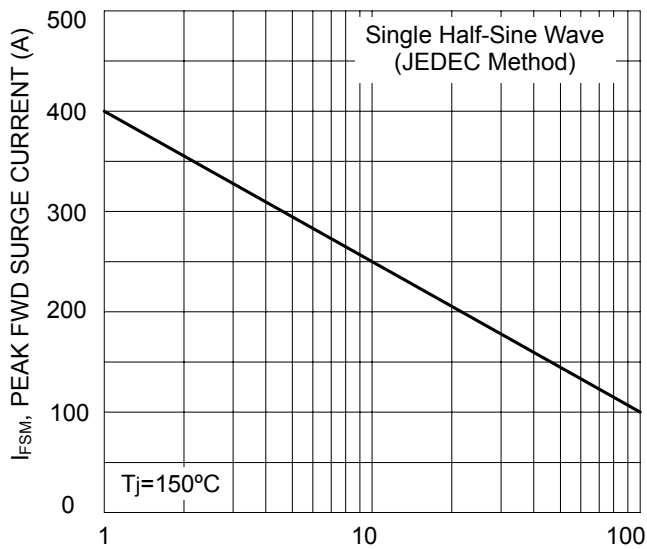


Fig.3 Max Non-Repetitive Surge Current

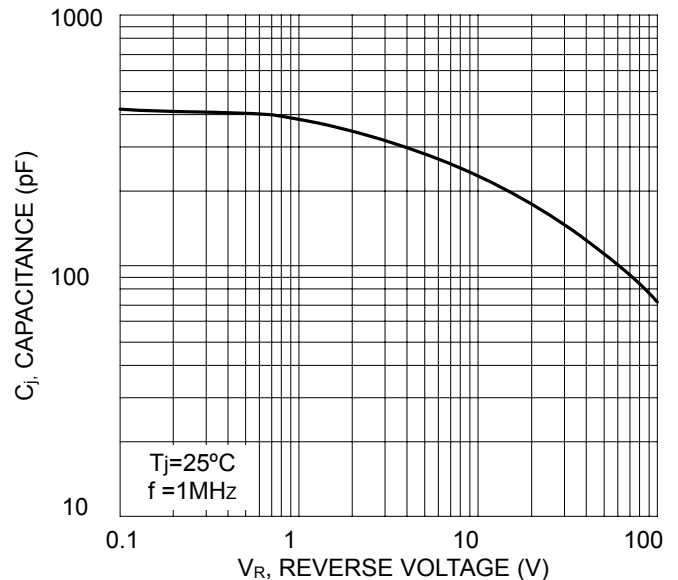


Fig.4 Typical Junction Capacitance (per element)

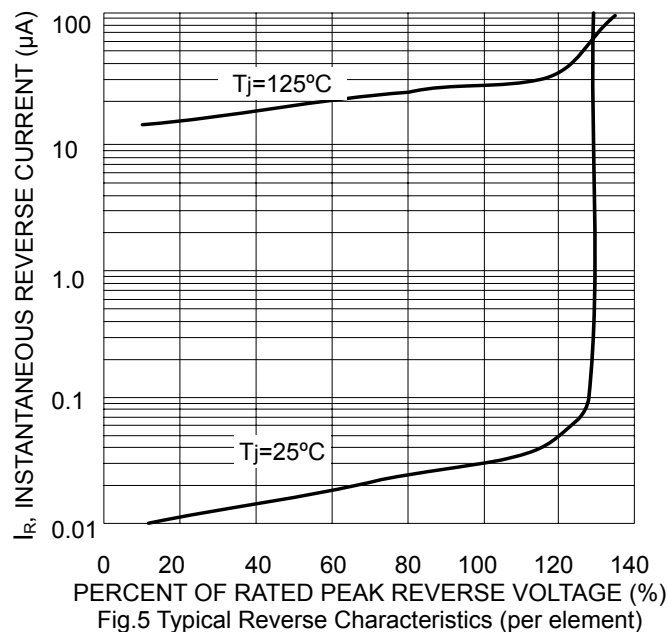
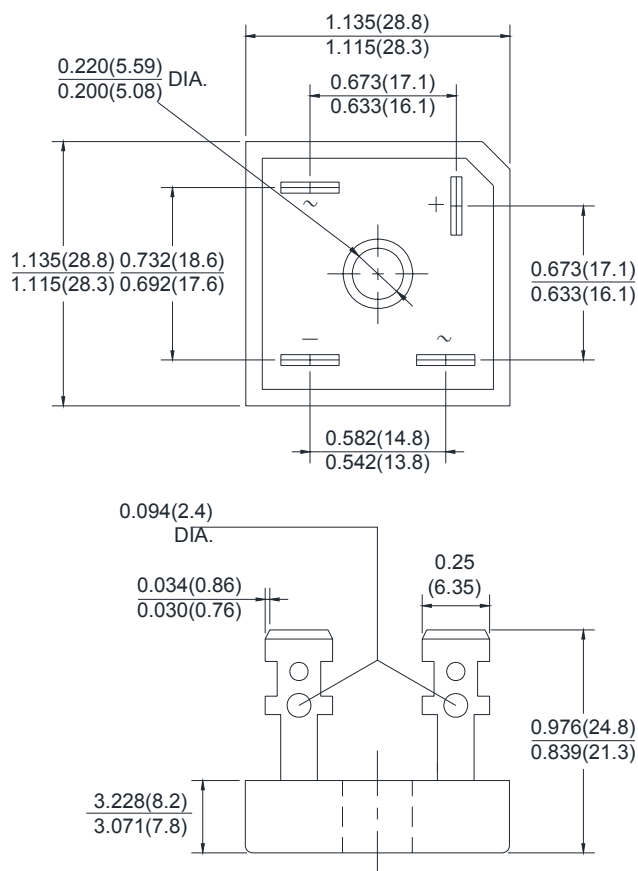


Fig.5 Typical Reverse Characteristics (per element)

## Package Outline Information

### CASE: GBPC-A



Dimensions in (inches) mm