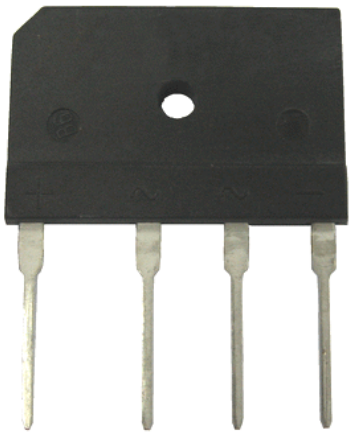
# GBJ8D thru GBJ8M



## Glass Passivated Single Phase Bridge Rectifiers

**Reverse Voltage** 200 to 1000V
**Forward Current** 8.0 Amp

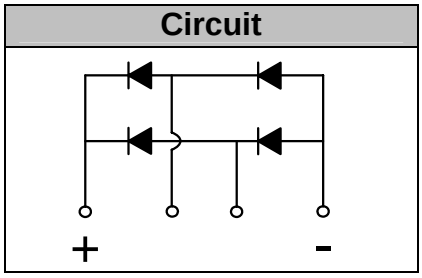
### Features

- Glass passivated die construction
- Ideal for printed circuit boards
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High temperature soldering guaranteed: 265℃ /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 | $V_{RRM}$ | $V_{RSM}$ |
|---|---|---|
| GBJ8D | 200V | 300V |
| GBJ8G | 400V | 500V |
| GBJ8J | 600V | 700V |
| GBJ8K | 800V | 900V |
| GBJ8M | 1000V | 1100V |

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

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_{F(AV)}$ | Maximum average forward output rectified current Tc =100℃ | 8.0 | A |
| $I_{FSM}$ | Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) | 180 | A |
| $i^2t$ | Rating for fusing (t<8.3ms) | 134 | $A^2s$ |
| Visol | a.c.50HZ;r.m.s.;1min | 2500 | V |
| $R_{\theta JA}$<br>$R_{\theta JC}$ | Maximum thermal resistance per leg | 26 (1)<br>3.4 (2) | ℃/W |
| $T_j$, $T_{STG}$ | Operating Junction and storage temperature range | -55 to +150 | ℃ |
| Weight | Approximate Weight | 7.0 | g |

### Electrical Characteristics (TA = 25℃ unless otherwise noted)

| Symbol | Conditions | | Values | Units |
|---|---|---|---|---|
| $V_F$ | Maximum Instantaneous Forward Voltage per leg | $I_{FM}$ =4.0A | 1.0 | V |
| $I_R$ | Maximum DC reverse current at rated<br>DC blocking voltage per leg | $T_A$ = 25℃<br>$T_A$ = 125℃ | 5.0<br>500 | μA |

Notes: (1) Junction to ambient without heatsink
(2) Junction to case with heatsink
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M3 screw

## Performance Curves

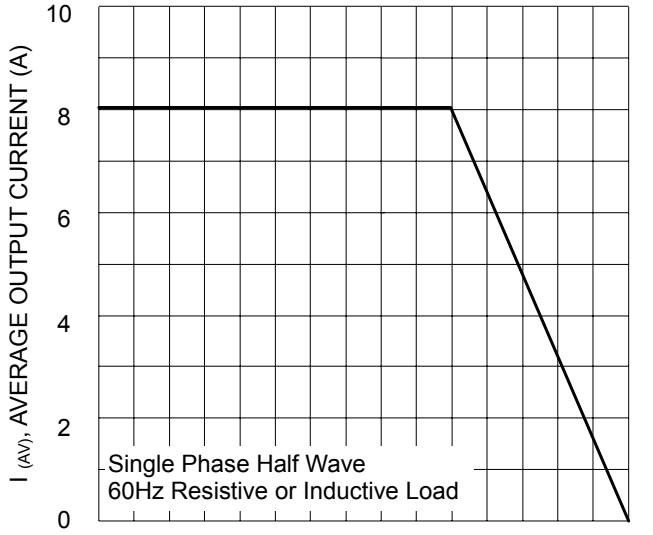



Fig.1 Forward Current Derating Curve

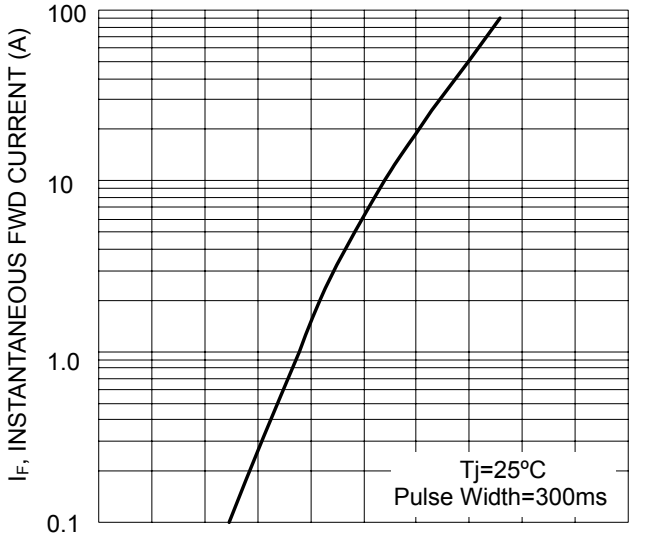



Fig.2 Typical Forward Characteristics, per element

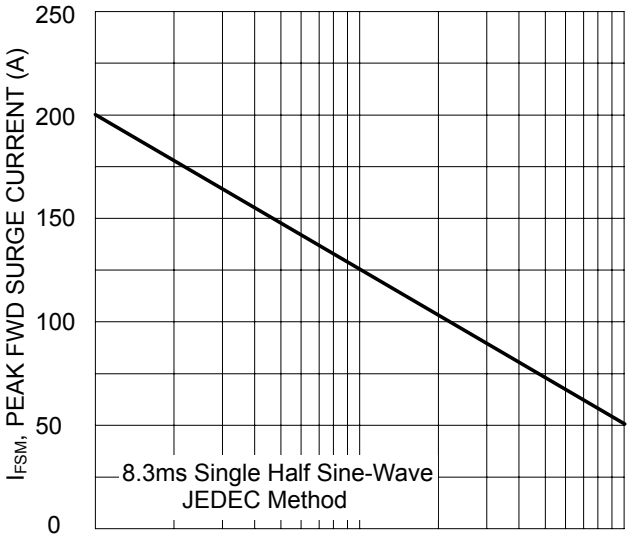



Fig.3 Max Non-Repetitive Peak Fwd Surge Current

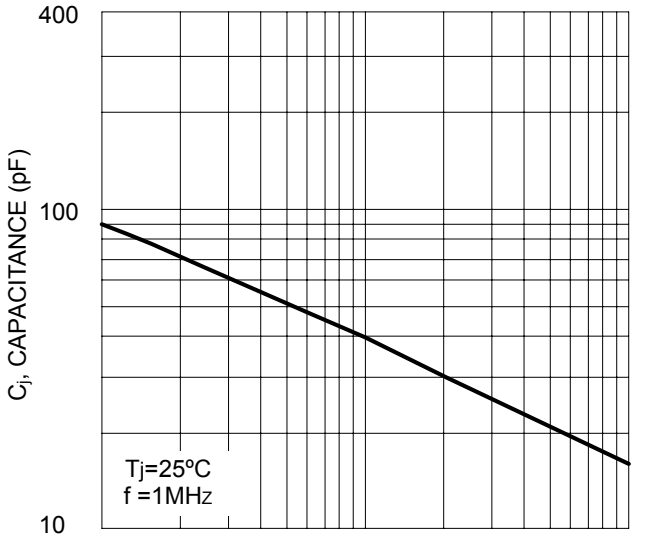



Fig.4 Typical Junction Capacitance Per Element

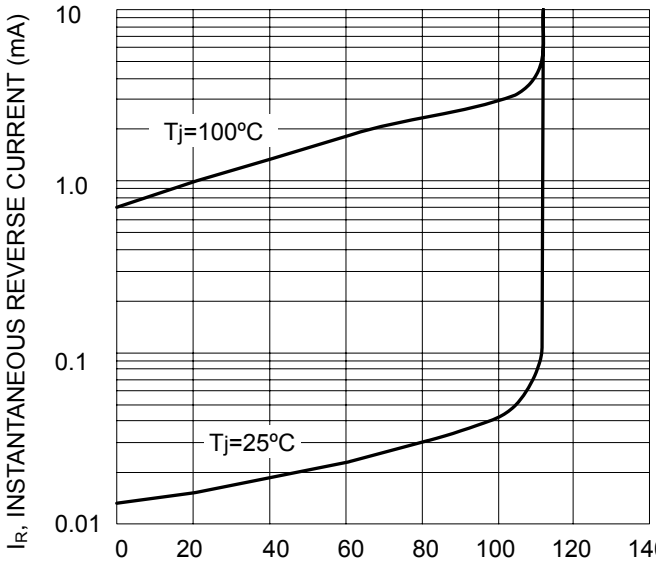
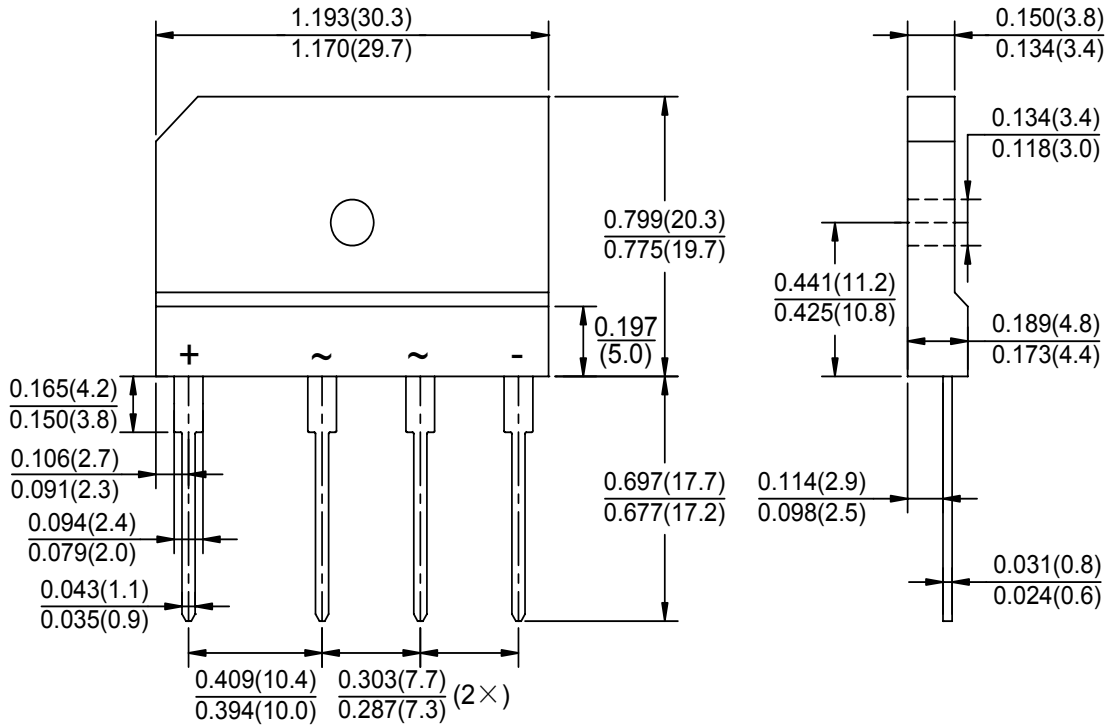



Fig.5 Typical Reverse Characteristics

## Package Outline Information

**CASE: GBJ**




**Dimensions in inches (mm)**