

Silicon Bridge Rectifiers

GBU8A--GBU8M

FEATURES

- Rating to 1000V PRV
- Surge overload rating to 200 Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208
- Glass passivated junctions



Lead-free

Maximum Ratings (@TA = 25°C unless otherwise specified)

| Characteristic | Symbol | GBU8A | GBU8B | GBU8D | GBU8G | GBU8J | GBU8K | GBU8M | UNITS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward Output current @ $T_c=100^\circ\text{C}$ | $I_{F(AV)}$ | 8.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wav superimposed on rated load | I_{FSM} | 200 | | | | | | | A |

Thermal Characteristics

| Characteristic | Symbol | GBU8A | GBU8B | GBU8D | GBU8G | GBU8J | GBU8K | GBU8M | UNITS |
|--------------------------------------|-----------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Operating junction temperature range | T_J | - 55 ---- + 150 | | | | | | | °C |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | | | | | | °C |

Electrical Characteristics (@TA = 25°C unless otherwise specified)

| Characteristic | Symbol | GBU8A | GBU8B | GBU8D | GBU8G | GBU8J | GBU8K | GBU8M | UNITS |
|--|--------|------------|-------|-------|-------|-------|-------|-------|---------------------|
| Maximum instantaneous forward voltage @4.0A | V_F | 1.0 | | | | | | | V |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 0.5 | | | | | | | μA mA |



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PACKAGE OUTLINE DIMENSIONS

| GBU | | |
|----------------------|-------------|-------|
| Dim | Min | Max |
| A | 22.00 | 22.40 |
| B | 18.40 | 18.80 |
| C | 3.40 | 3.95 |
| C1 | 2.50 | 3.00 |
| E | 0.40 | 0.60 |
| F | 17.00min | |
| F1 | 1.70 | 2.30 |
| I1 | 2.30 | 2.60 |
| I2 | 0.95 | 1.25 |
| K | 4.70 | 5.30 |
| P | R1.9typical | |
| All Dimensions in mm | | |

PACKAGE INFORMATION

| Device | Package | Shipping |
|--------------|---------|---------------|
| GBU8A--GBU8M | GBU | 500 Units/Box |



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FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

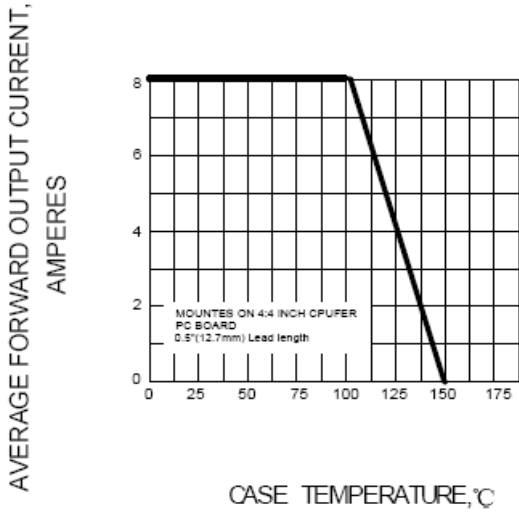


FIG.2 – MAXIMUM FORWARD SURGE CURRENT

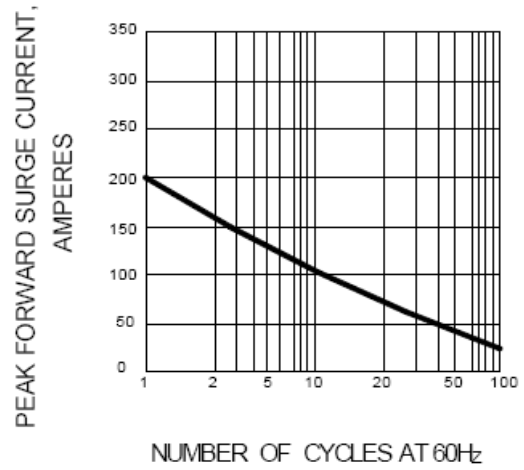


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

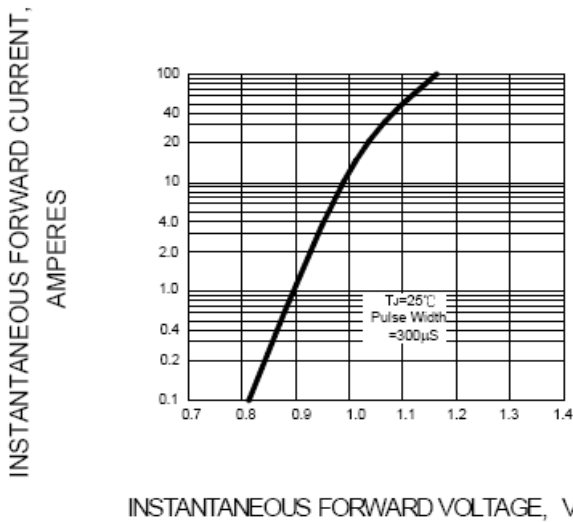


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

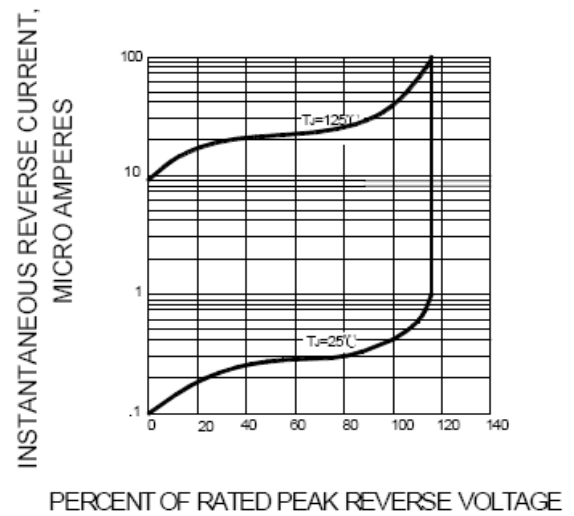


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER ELEMENT

