

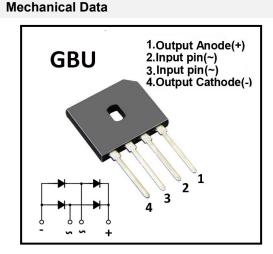
GBU6005-GBU610/G

Single Phase 6.0Amp Glass passivated Bridge Rectifiers

Features

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

- · Idea for printed circuit board
- · Glass passivated Junction chip
- · Low reverse leakage
- · High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals
- The G suffix is uses for photoresist chip, otherwise it is a knife scraping chip



MECHANICAL DATA

· Case: Molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

· Polarity: Polarity symbol marking on body

· Mounting Position: Any

Maximum Ratings And Electrical Characteristics (@T_A=25°C unless otherwise noted)

| Symbol | Parameter | GBU | GBU | GBU | GBU | GBU | GBU | GBU | Unit |
|-----------------------------|--|-------------|-----|-----|------|-----|-----------------------------|------|------|
| | | 6005 | 601 | 602 | 604 | 606 | 608 | 610 | |
| V_{RRM} | repetitive peak reverse voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| V_{RMS} | RMS voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| V _{DC} | DC blocking voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| I _{AV} | Maximum average forward rectified current | 6.0 | | | | | | | А |
| | with heatsink | | | | | | | | |
| I _{FSM} | Peak forward surge current, 8.3ms single | 150.0 | | | | | | | А |
| | half sine-wave | | | | | | | | |
| I _t ² | I_t^2 Rating for fusing (t=8.3ms,T _A =25 $^{\circ}$ C) | 93.375 | | | | | A _S ² | | |
| V _F | Forward Voltage at 6.0A | 1.10 | | | | | V | | |
| I _R | Peak Reverse Current@T _A =25°C | 5.0 | | | | | | uA | |
| | at rated DC blocking voltage @T _A =125°C | 500 | | | | | | | |
| CJ | Typical junction capacitance (Note 1) | 65 | | | pF | | | | |
| R _{qJA} | Typical thermal resistance | 31.0 | | | °C/W | | | | |
| T _J | Operation Temperature Range | -55 to +150 | | | | | °C | | |
| T _{STG} | Storage Temperature Range | -55 to +150 | | | | | | | |

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Note:(1)Measured at 1MHz and applied reverse voltage of 4.0V D.C.

- (2)Mounted on glass epoxy PC board with 1.3mm² solder pad.
- (3) Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

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Ratings And Characteristic Curves

Figure 1: DERATING CURVE OUTPUT RECTIFIED CUR-

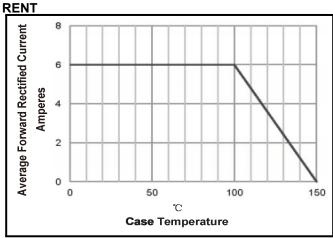


Figure 3:TYPICAL FORWARD VOLTAGE CHARACTER-

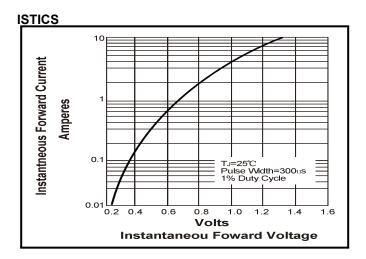


Figure 2: MAXIMUM NON-REPETITIVE PEAK FOR-

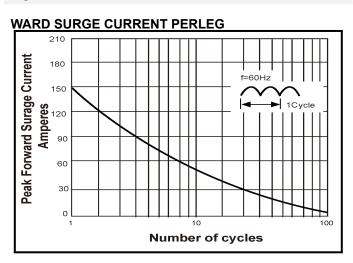
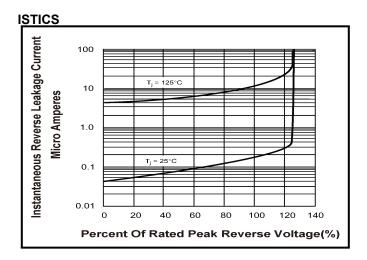


Figure 4:TYPICAL REVERSE LEAKAGE CHARACTER-



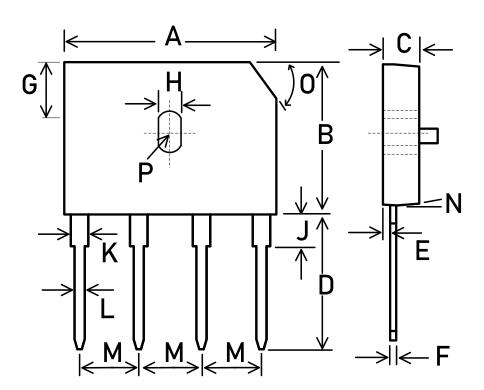


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Outline Drawing -GBU



| CVMDOL | MILLIMETER | | | | | |
|--------|------------|-------|--|--|--|--|
| SYMBOL | MIN. | MAX. | | | | |
| Α | 21.80 | 22.30 | | | | |
| В | 18.30 | 18.80 | | | | |
| С | 3.30 | 3.60 | | | | |
| D | 17.50 | 18.00 | | | | |
| E | 0.76 | 1.00 | | | | |
| F | 0.45 | 0.55 | | | | |
| G | 7.40 | 7.90 | | | | |
| Н | 3.50 | 4.10 | | | | |
| ı | 1.65 | 2.16 | | | | |
| J | 2.25 | 2.75 | | | | |
| K | 2.00 | 2.40 | | | | |
| L | 1.00 | 1.30 | | | | |
| М | 4.83 | 5.33 | | | | |
| N | 7.0° TYP. | | | | | |
| 0 | (3.2)x45° | | | | | |
| Р | 1.90PADIUS | | | | | |