

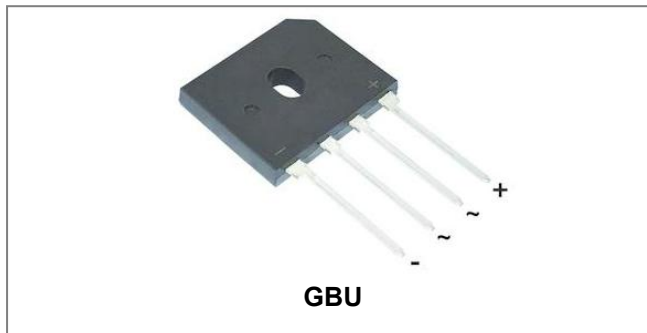


THE DATASHEET OF GBU610G



GBU6005G THRU GBU610G

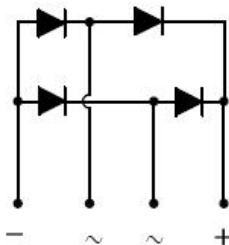
Single-Phase 6.0A Glass Passivated Bridge Rectifier



Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: GBU, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings: @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Type Number | Symbol | GBU 6005G | GBU 601G | GBU 602G | GBU 604G | GBU 606G | GBU 608G | GBU 610G | Units |
|---|---|-----------|----------|----------|----------|----------|----------|----------|-------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average forward rectified output current (Note 1) @T _A = 40°C | I _O | 6.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 150 | | | | | | | A |

Electrical Characteristics: @T_A=25°C unless otherwise specified

| Type Number | Symbol | GBU 6005G | GBU 601G | GBU 602G | GBU 604G | GBU 606G | GBU 608G | GBU 610G | Units |
|---|-----------------|-----------|----------|----------|------------|----------|----------|----------|-------|
| Forward Voltage (per element) @I _F =3A @I _F =6A | V _F | | | | 1.0 1.1 | | | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C | I _{RM} | | | | 5.0 500 | | | | μA |
| Typical Junction Capacitance(per leg) (Note 2) | C _J | | | | 65 | | | | pF |

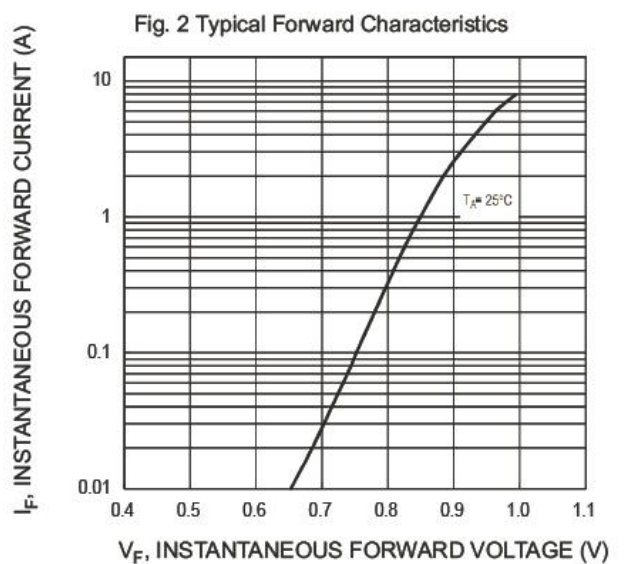
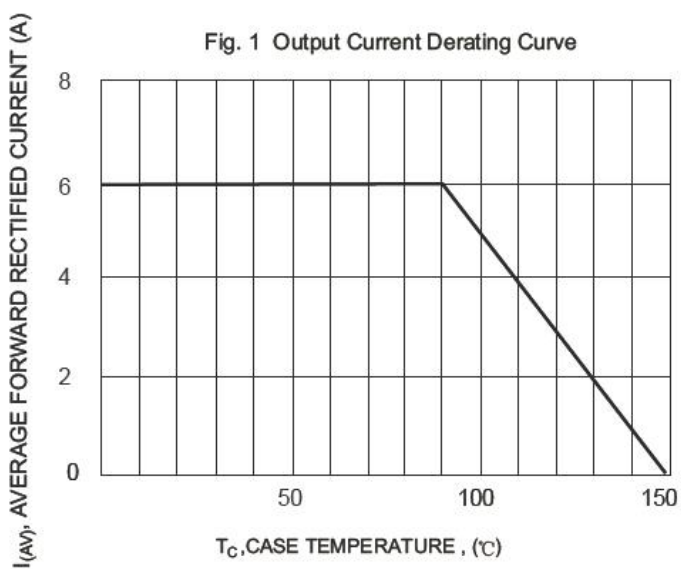
* Pulse width < 300 μs, duty cycle < 2%

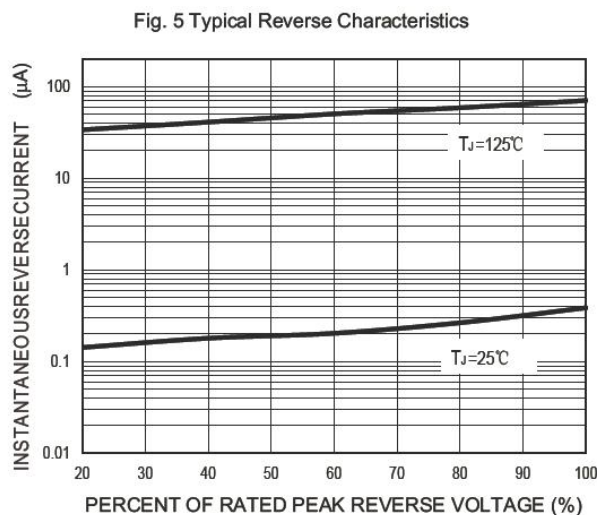
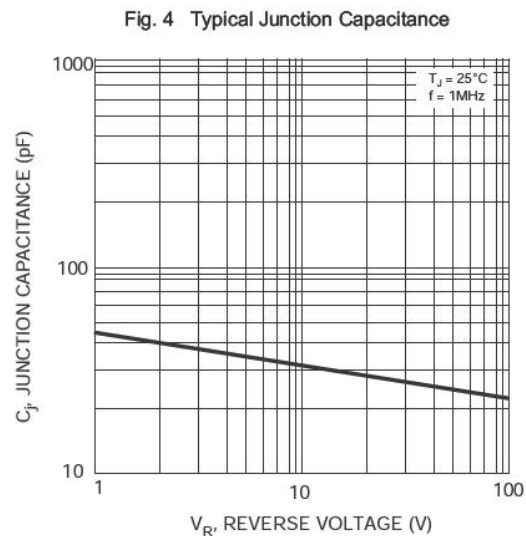
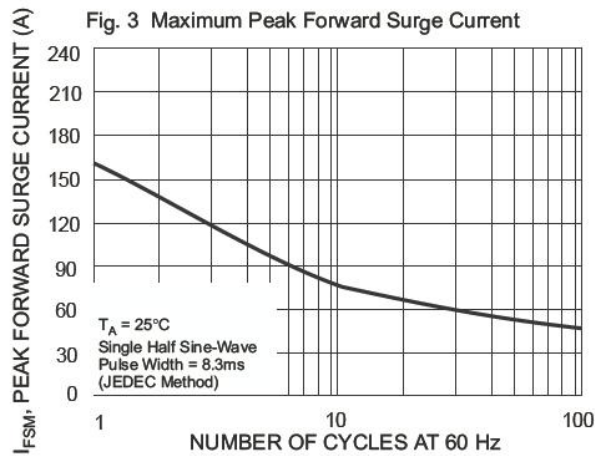
Thermal-Mechanical Specifications: @T_A=25°C unless otherwise specified

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|---|--------------------------------------|-----------|----------|----------|-------------|----------|----------|----------|-------|
| Typical Thermal Resistance (per leg) | R _{θJA} R _{θJL} | | | | 17 2.2 | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | | | | -55 to +150 | | | | °C |

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Ratings and Characteristics Curves



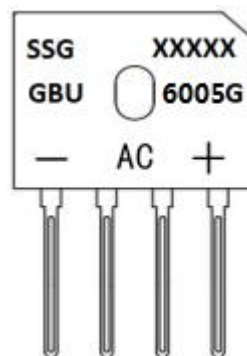


Ordering Information

| Device | Package | Plating | Shipping |
|-----------------------------|--------------|---------|--------------|
| GBU6005G THRU GBU610G | GBU(Pb-Free) | Pure Sn | 20pcs / tube |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

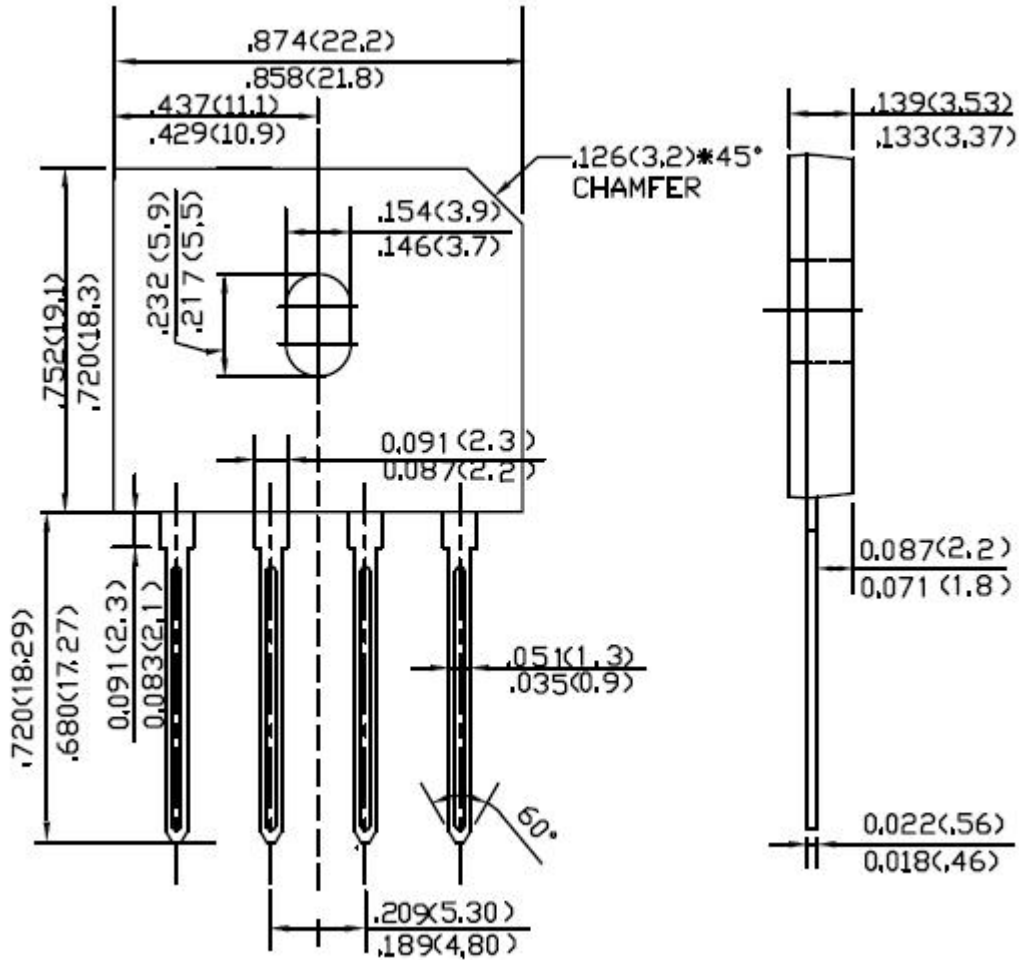


Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
GBU6005G = Type Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Mechanical Dimensions GBU (Inches/Millimeters)



**Technical Data
Data Sheet N1799, Rev. A**



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