

| | |
|---|----------------|
|  | E502650 |
|---|----------------|

Features

- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Max Thermal Resistance: 1.0°C/W Junction to Case (Heatsink)
- Max Thermal Resistance: 6.0°C/W Junction to Ambient (Heatsink)
- Max Thermal Resistance: 3.0°C/W Junction to Lead (Heatsink)
- Mounting Torque: 5in-lbs Maximum

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| GBU25005 | GBU25005 | 50V | 35V | 50V |
| GBU2501 | GBU2501 | 100V | 70V | 100V |
| GBU2502 | GBU2502 | 200V | 140V | 200V |
| GBU2504 | GBU2504 | 400V | 280V | 400V |
| GBU2506 | GBU2506 | 600V | 420V | 600V |
| GBU2508 | GBU2508 | 800V | 560V | 800V |
| GBU2510 | GBU2510 | 1000V | 700V | 1000V |

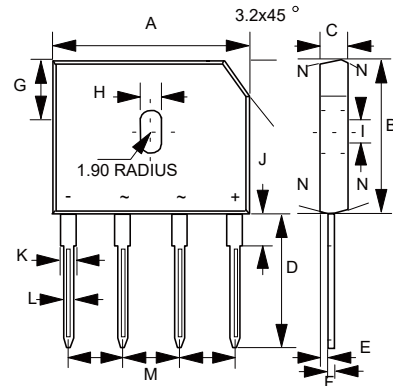
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------------|--|
| Maximum Average Forward Current (With Heatsink) | $I_{F(AV)}$ | 25A | $T_C = 98^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 300A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_{FM} = 12.5A$ $T_A = 25^\circ\text{C}$ |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 10µA | $T_A = 25^\circ\text{C}$ |
| Rating for Fusing | I^2t | 373A ² s | $t < 8.3ms$ |
| Dielectric Strength | V_{dis} | 2.5KV | Terminals to Case, AC 1 Minute |

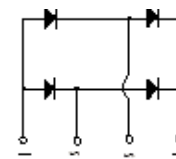
Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7.

25 Amp Single Phase Glass Passivated Bridge Rectifiers 50 to 1000 Volts

GBU



| DIM | INCHES | | MM | | NOTE |
|-----|--------------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.860 | 0.880 | 21.80 | 22.30 | |
| B | 0.720 | 0.740 | 18.30 | 18.80 | |
| C | 0.130 | 0.142 | 3.30 | 3.60 | |
| D | 0.690 | 0.717 | 17.50 | 18.20 | |
| E | 0.030 | 0.039 | 0.76 | 1.00 | |
| F | 0.018 | 0.024 | 0.46 | 0.60 | |
| G | 0.290 | 0.310 | 7.40 | 7.90 | |
| H | 0.140 | 0.160 | 3.50 | 4.10 | |
| I | 0.065 | 0.085 | 1.65 | 2.16 | |
| J | 0.060 | 0.096 | 1.52 | 2.45 | |
| K | 0.077 | 0.098 | 1.95 | 2.50 | |
| L | 0.040 | 0.050 | 1.02 | 1.27 | |
| M | 0.190 | 0.210 | 4.83 | 5.33 | |
| N | 7.0° TYPICAL | | | | |



Case Style

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

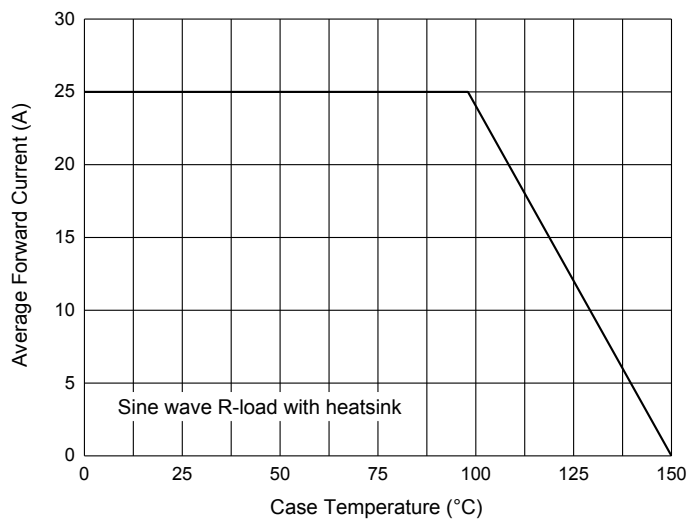


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

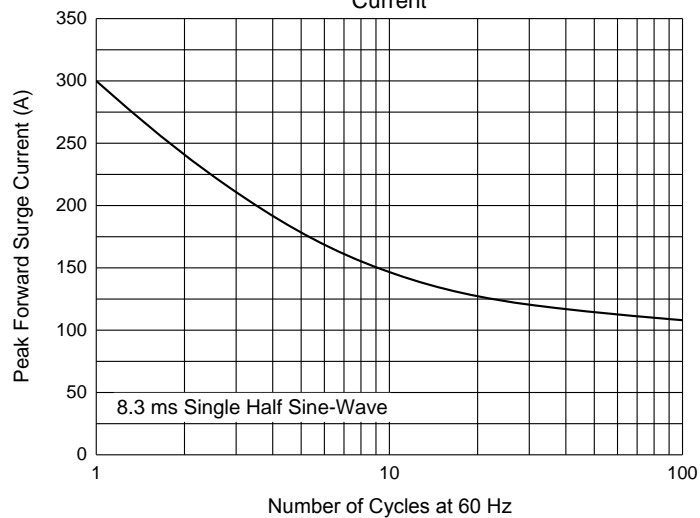


Fig. 3 - Typical Instantaneous Forward Characteristics

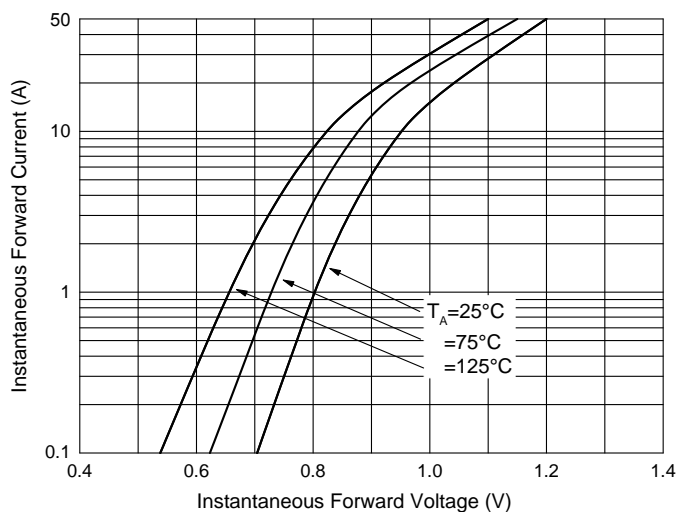


Fig. 4 - Typical Reverse Leakage Characteristics

