

# GL1500, 2500, 3500 SERIES

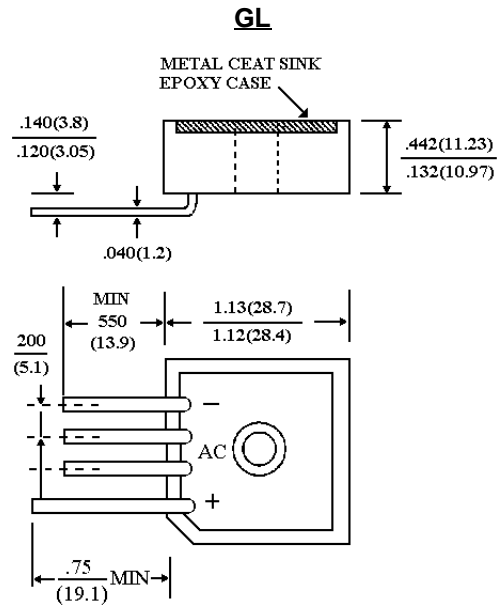
## IN-LINE HIGH CURRENT SILICON BRIDGE RECTIFIERS VOLTAGE - 50 to 800 Volts CURRENT - 15 to 35 Amperes

### FEATURES

- Plastic Case With Heatsink For Heat Dissipation
- Surge Overload Ratings to 400 Amperes
- The plastic package has Underwriters Laboratory Flammability Classification 94V-O

### MECHANICAL DATA

Case: Molded plastic with heatsink integrally mounted in the bridge Encapsulation  
Weight: 1 ounce, 30 grams  
Mounting position: Any  
Terminals: Wire Lead  $\leq$  50 mils



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Inductive or resistive Load at 60Hz. For capacitive load derate current by 20%.  
All Ratings are for  $T_C=25^\circ\text{C}$  unless otherwise specified.

|   |                 | -00         | -01 | -02 | -04 | -06 | -08 | UNITS                |
|---|-----------------|-------------|-----|-----|-----|-----|-----|----------------------|
| Max Recurrent Peak Reverse Voltage  |                 | 50          | 100 | 200 | 400 | 600 | 800 | V                    |
| Max RMS Input Voltage   |                 | 35          | 70  | 140 | 280 | 420 | 560 | V                    |
| Max DC Blocking Voltage   |                 | 50          | 100 | 200 | 400 | 600 | 800 | V                    |
| DC Output Voltage, Resistive Load   |                 | 30          | 62  | 124 | 250 | 380 | 505 | V                    |
| DC Output Voltage, Capacitive Load  |                 | 50          | 100 | 200 | 400 | 600 | 800 | V                    |
| Max Average Forward Current for Resistive Load at $T_C=55^\circ\text{C}$                                    | GL15            | 15          |     |     |     |     |     | A                    |
|   | GL25            | 25          |     |     |     |     |     | A                    |
|   | GL35            | 35          |     |     |     |     |     | A                    |
| Non-repetitive Peak Forward Surge Current at Rated Load   | GL15            | 300         |     |     |     |     |     | A                    |
|   | GL25            | 300         |     |     |     |     |     | A                    |
|   | GL35            | 400         |     |     |     |     |     | A                    |
| Max Forward Voltage per Bridge Element at Specified Current   | GL15 $I_F$ 7.5A | 1.2         |     |     |     |     |     | V                    |
|   | GL25 12.5A      |             |     |     |     |     |     |                      |
|   | GL35 17.5A      |             |     |     |     |     |     |                      |
| Max Reverse Leakage Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ |                 | 10          |     |     |     |     |     | $\mu\text{g A}$      |
|   |                 | 1000        |     |     |     |     |     |                      |
| $I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )   |                 | 374 / 664   |     |     |     |     |     | $\text{A}^2\text{s}$ |
| Typical Thermal Resistance (Fig. 3) $R_{\theta\text{JC}}$   |                 | 2.0         |     |     |     |     |     | $^\circ\text{C/W}$   |
| Operating Temperature Range $T_J$   |                 | -55 to +150 |     |     |     |     |     | $^\circ\text{C}$     |
| Storage Temperature Range $T_A$   |                 |             |     |     |     |     |     |                      |

RATING AND CHARACTERISTIC CURVES

GL1500 THRU GL3500

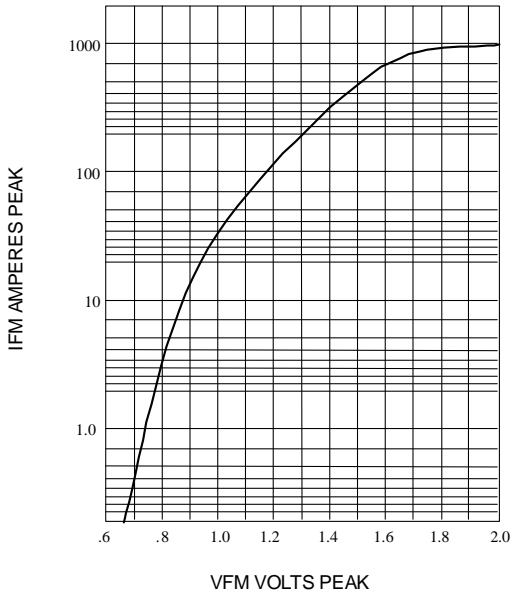


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT  $T_J = 25 \text{ }^\circ\text{C}$

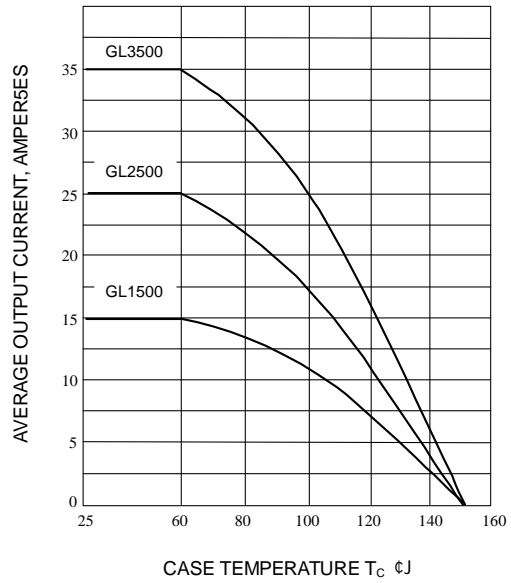


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD  $T_J = 175 \text{ }^\circ\text{C}$

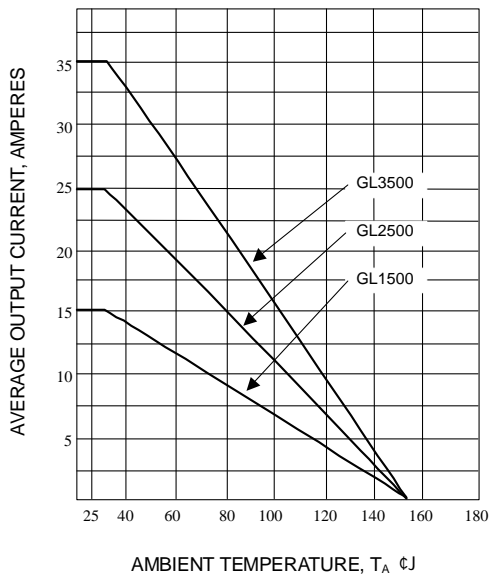


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"x8" ALUMINUM PLATE 25" THICK

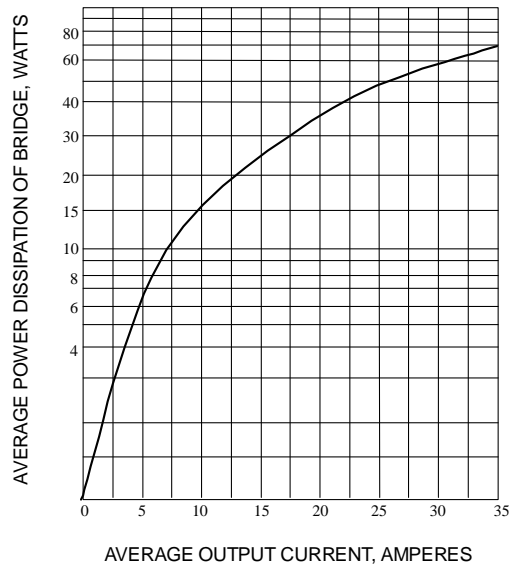


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD,  $T_J = 175 \text{ }^\circ\text{C}$