



# DATA SHEET

## GL1500~GL1508

### IN-LINE HIGH CURRENT SILICON BRIDGE RECTIFIER

**VOLTAGE** 50 to 800 Volts **CURRENT** 15 Amperes

**GL** Unit: inch (mm)

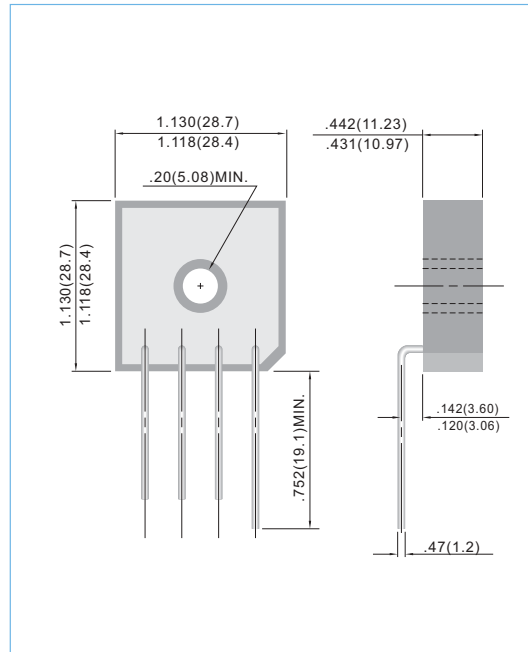
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#### FEATURES

- Plastic Case With Heatsink For Heat Dissipation.
- Surge Overload Ratings to 300 Amperes.
- The plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 98.5% Sn above

#### MECHANICAL DATA

Case: Moulded plastic with heatsink integrally mounted in birdge encapsulation.  
Weight: 1.0 ounce, 30 gram  
Terminals: Wire Lead  $\phi$  50 mils  
Mounting Position: Any



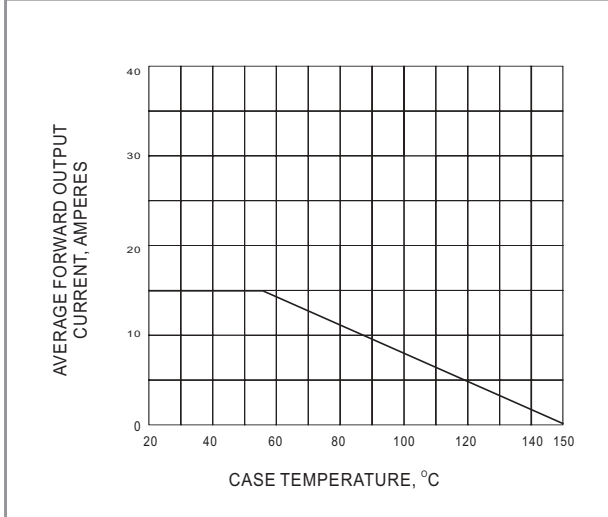
#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, Resistive or inductive load.  
For capacitive load, derate current by 20%

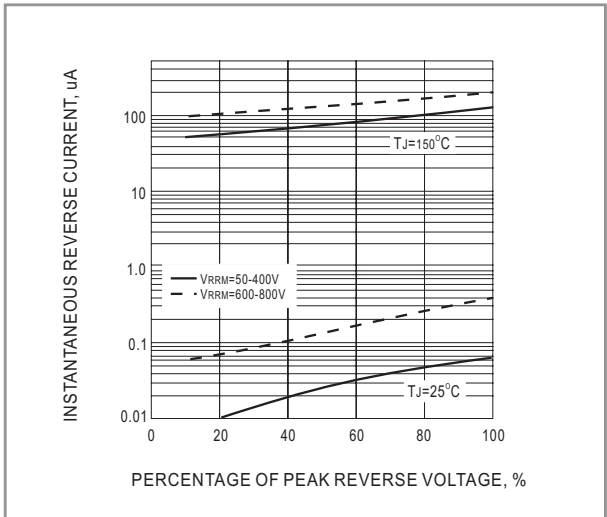
| PARAMETER  | SYMBOL          | GL1500       | GL1501 | GL1502 | GL1504 | GL1506 | GL1508 | UNITS        |
|--|-----------------|--------------|--------|--------|--------|--------|--------|--------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 50           | 100    | 200    | 400    | 600    | 800    | V            |
| Maximum RMS Bridge Input Voltage   | $V_{RMS}$       | 35           | 70     | 140    | 280    | 420    | 560    | V            |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 50           | 100    | 200    | 400    | 600    | 800    | V            |
| DC Output Voltage, Capacitive load   |                 | 30           | 62     | 124    | 250    | 380    | 505    | V            |
| DC Output Voltage, Resistive load  |                 | 50           | 100    | 200    | 400    | 600    | 800    | V            |
| Maximum Average Forward Current For Resistive Load at $T_C=55^\circ C$                                 | $I_{AV}$        | 15           |        |        |        |        |        | A            |
| Non-repetitive Peak Forward Surge Current at Rated Load  | $I_{FSM}$       | 300          |        |        |        |        |        | A            |
| Maximum Forward Voltage per Bridge Element at 7.5A Specified Current                                   | $V_F$           | 1.1          |        |        |        |        |        | V            |
| Maximum Reverse Leakage Current at Rated @ $T_A=25^\circ C$<br>Dc Blocking Voltage @ $T_A=100^\circ C$ | $I_R$           | 10<br>1000   |        |        |        |        |        | $\mu A$      |
| $I^2t$ Rating for fusing ( $t < 8.35ms$ )  | $I^2t$          | 374          |        |        |        |        |        | $A^2sec$     |
| Typical Thermal Resistance per leg   | $R_{\theta JC}$ | 2.0          |        |        |        |        |        | $^\circ C/W$ |
| Operating and Storage Temperature Range  | $T_J, T_A$      | -55 to + 150 |        |        |        |        |        | $^\circ C$   |



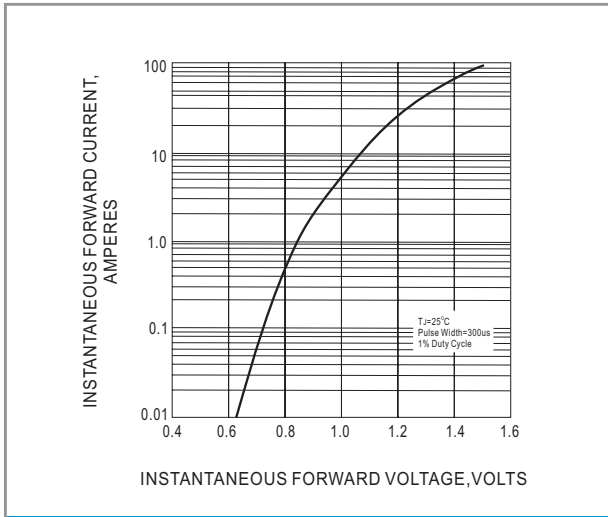
**RATING AND CHARACTERISTIC CURVES**



**Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**Fig.2 TYPICAL REVERSE CHARACTERISTICS**



**Fig.3 TYPICAL FORWARD CHARACTERISTIC**