



# LGE8005~LGE810

Single Phase 8.0Amp Glass passivated Bridge Rectifiers

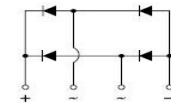


## Features

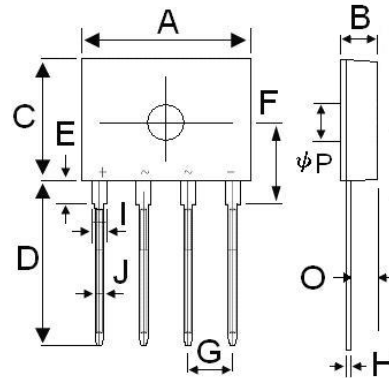
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
- 50 C/10 seconds at terminals

## 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



D3K



| D3K                          |      |      |
|------------------------------|------|------|
| Dim.                         | Min. | Max. |
| A                            | 14.2 | 14.7 |
| B                            | 3.30 | 3.60 |
| C                            | 10.2 | 10.6 |
| D                            | 13.8 | 14.4 |
| E                            | 1.8  | 2.2  |
| F                            | 6.65 | 7.25 |
| G                            | 3.71 | 3.91 |
| H                            | 0.35 | 0.55 |
| I                            | 1.22 | 1.42 |
| J                            | 0.76 | 0.86 |
| O                            | 1.8  | 2.4  |
| P                            | 2.9Φ | 3.2Φ |
| All Dimensions in millimeter |      |      |

## 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 current derate by 20%.

| Parameter                                                                                       | SYMBOLS        | LGE 8005    | LGE 801 | LGE 802 | LGE 804 | LGE 806 | LGE 808 | LGE 810 | UNITS         |
|-------------------------------------------------------------------------------------------------|----------------|-------------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum repetitive peak reverse voltage                                                         | $V_{RRM}$      | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V             |
| Maximum RMS voltage                                                                             | $V_{RMS}$      | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V             |
| Maximum DC blocking voltage                                                                     | $V_{DC}$       | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V             |
| Maximum average forward rectified current with heatsink                                         | $I_{(AV)}$     | 8.0         |         |         |         |         |         |         | A             |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load              | $I_{FSM}$      | 170.0       |         |         |         |         |         |         | A             |
| Rating for fusing ( $t=8.3ms$ , $T_A=25^{\circ}C$ )                                             | $I_t^2$        | 120.0       |         |         |         |         |         |         | $A^2s$        |
| Maximum instantaneous forward voltage at 6.0A                                                   | $V_F$          | 1.10        |         |         |         |         |         |         | V             |
| Maximum DC reverse current $T_A=25^{\circ}C$<br>at rated DC blocking voltage $T_A=125^{\circ}C$ | $I_R$          | 5.0<br>500  |         |         |         |         |         |         | $\mu A$       |
| Typical junction capacitance (Note 1)                                                           | $C_J$          | 56.0        |         |         |         |         |         |         | pF            |
| Typical thermal resistance                                                                      | $R_{qJA}$      | 55.0        |         |         |         |         |         |         | $^{\circ}C/W$ |
| Operating junction and storage temperature range                                                | $T_J, T_{STG}$ | -55 to +150 |         |         |         |         |         |         | $^{\circ}C$   |

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



## Ratings And Characteristic Curves

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FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

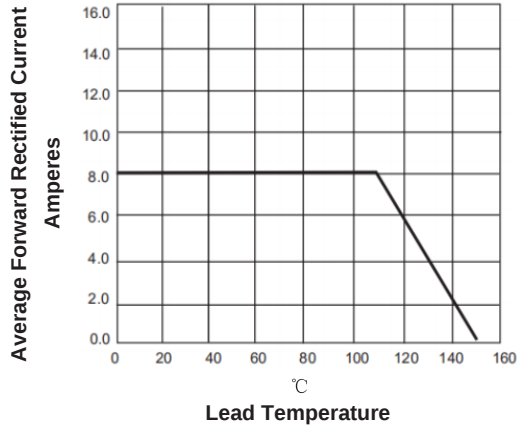


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

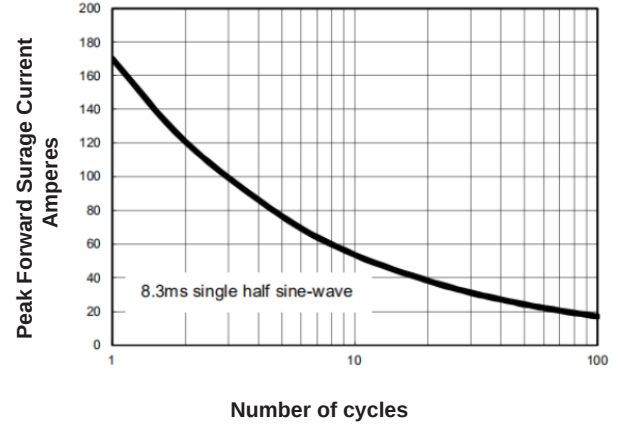


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

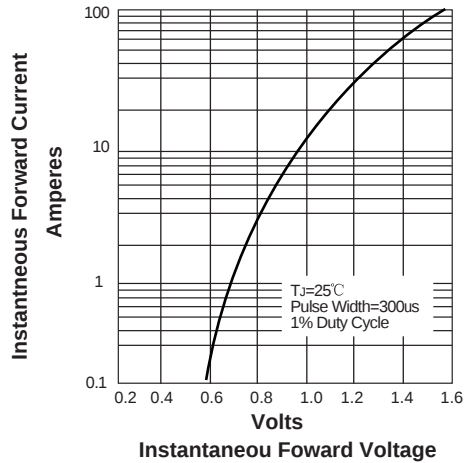
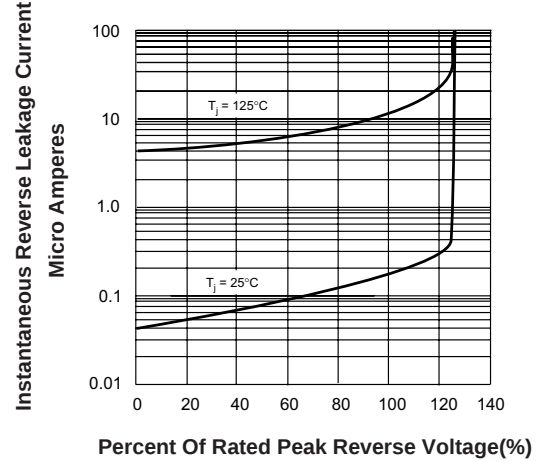


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



| Package | Tube (mm)    | Q'TY/Tube (Kpcs) | Box Size (mm) | QTY/Box (Kpcs) | Carton Size (mm) | Q'TY/Carton (Kpcs) |
|---------|--------------|------------------|---------------|----------------|------------------|--------------------|
| D3K     | 445*30.7*5.6 | 0.03             | 495*130*70    | 1.2            | 520*370*155      | 6                  |