# Silicon Bridge Rectifiers



# KBL400 Thru KBL410

Reverse Voltage: 50 - 1000 Volts

Forward Current: 4.0 Amp

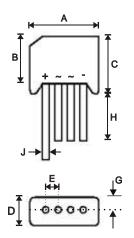
#### **Features**

- Diffused Junction
- Low Forward Voltage Drop
- High Reliability
- High Current Capability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

#### **Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL STD-202, Method 208
- Weight: 5.6 grams (approx.)
- Mounting Position: Any

### **KBL**



| KBL                  |        |       |  |  |  |  |  |  |  |
|----------------------|--------|-------|--|--|--|--|--|--|--|
| Dim                  | Min Ma |       |  |  |  |  |  |  |  |
| Α                    | 18.50  | 19.50 |  |  |  |  |  |  |  |
| В                    | 13.70  | 14.70 |  |  |  |  |  |  |  |
| С                    | 15.20  | 16.30 |  |  |  |  |  |  |  |
| D                    | 6.00   | 6.50  |  |  |  |  |  |  |  |
| Е                    | 4.60   | 5.60  |  |  |  |  |  |  |  |
| G                    | -      | 2.10  |  |  |  |  |  |  |  |
| Н                    | 19.00  | -     |  |  |  |  |  |  |  |
| J                    | 1.20   | 1.30  |  |  |  |  |  |  |  |
| All Dimensions in mm |        |       |  |  |  |  |  |  |  |

## Maximum Ratings and Electrical Characterics Rating at 25°C unless otherwise specified.

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

| CHARACTERISTICS   |              | KBL<br>400  | KBL<br>401 | KBL<br>402 | KBL<br>404 | KBL<br>406 | KBL<br>408 | KBL<br>410 | UNIT |
|---|--------------|-------------|------------|------------|------------|------------|------------|------------|------|
| Peak Repetitive Reverse Voltage   |              |             |            |            |            |            |            |            |      |
| Working Peak Reverse Voltage  |              | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | V    |
| DC Blocking Voltage   |              |             |            |            |            |            |            |            |      |
| RMS Reverse Voltage   | $V_{R(RMS)}$ | 35          | 70         | 140        | 280        | 420        | 560        | 700        | V    |
| Average Rectified Output Current (Note1) @ T <sub>A</sub> = 75°C  |              | 4           |            |            |            |            |            |            | Α    |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) |              | 150         |            |            |            |            |            |            | А    |
| Forward Voltage (per element) @I <sub>F</sub> = 2.0A  |              | 1.1         |            |            |            |            |            |            | V    |
| Peak Reverse Current @T <sub>C</sub> = 25°C At Rated DC Blocking Voltage @T <sub>C</sub> = 100°C                |              | 10<br>1.0   |            |            |            |            |            |            |      |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note1)  |              |             |            | $A^2s$     |            |            |            |            |      |
| Typical Thermal Resistance (Note2)  |              | 19          |            |            |            |            |            |            | K/W  |
| Operating and Storage Temperature Range   |              | -65 to +125 |            |            |            |            |            |            | °C   |

**Note:** 1. Non-repetitive for t > 1ms and < 8.3ms.

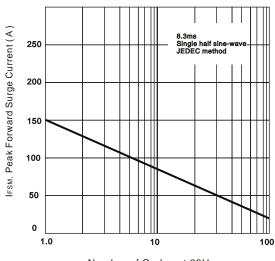
2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03mm thick land areas.

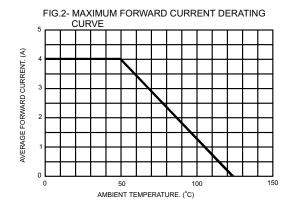
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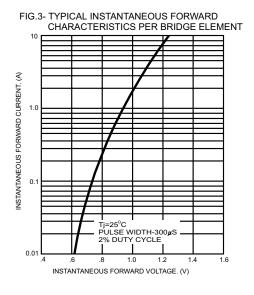
### Rating and Characteristic Curves (KBL400 thru 410)

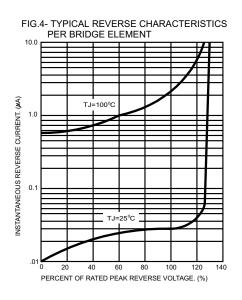
FIG.1- MAXIMUM NON-REPETITIVE PEAK Fwd SURGE CURRENT











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