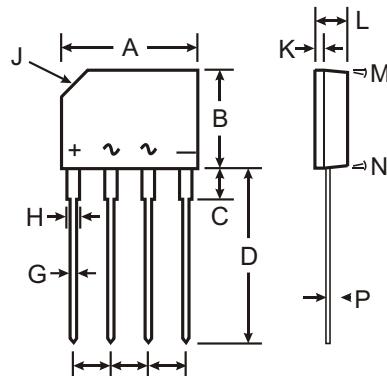


Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 65A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0
- UL Listed Under Recognized Component Index, File Number E94661

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 3
- Polarity: Marked on Body
- Approx. Weight: 1.52 grams
- Mounting Position: Any
- Marking: Type Number



| KBP | | |
|-----|-------------------|---------|
| Dim | Min | Max |
| A | 14.25 | 14.75 |
| B | 10.20 | 10.60 |
| C | 2.29 | Typical |
| D | 14.25 | 14.73 |
| E | 3.56 | 4.06 |
| F | 0.76 | 0.86 |
| G | 1.17 | 1.42 |
| H | 2.8 X 45° Chamfer | |
| I | 0.80 | 1.10 |
| J | 3.35 | 3.65 |
| K | 3° Nominal | |
| L | 2° Nominal | |
| M | 0.30 | 0.64 |

All Dimensions in mm

Maximum Ratings and Electrical Characteristics

• @ T_A = 25°C unless otherwise specified

Single phase, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristic | Symbol | KBP 2005G | KBP 201G | KBP 202G | KBP 204G | KBP 206G | KBP 208G | KBP 210G | Unit |
|---|--|-----------|----------|----------|-------------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{R_{RRM}} V _{R_{RWM}} V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @ T _C = 105°C | I _O | | | | 2.0 | | | | A |
| Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | | | | 65 | | | | A |
| Forward Voltage per element @ I _F = 2.0A | V _{FM} | | | | 1.1 | | | | V |
| Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 125°C | I _{RM} | | | | 5.0 | 500 | | | μA |
| Typical Total Capacitance per Element (Note 2) | C _T | | | | 25 | | | | pF |
| Typical Thermal Resistance (Note 1) | R _{θJC} | | | | 14 | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | | | | -65 to +150 | | | | °C |

Notes: 1. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

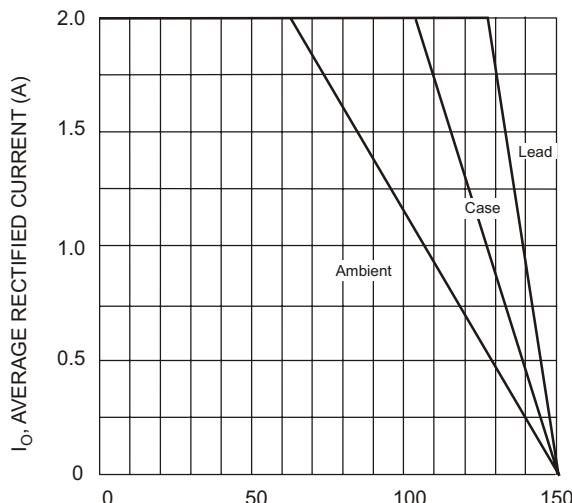


Fig. 1 Forward Current Derating Curve

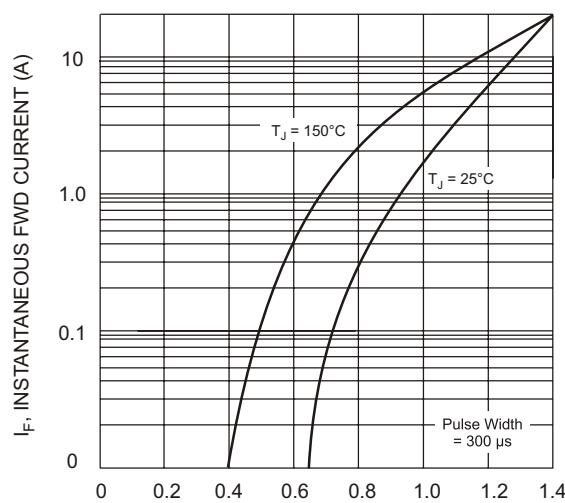


Fig. 2 Typical Fwd Characteristics

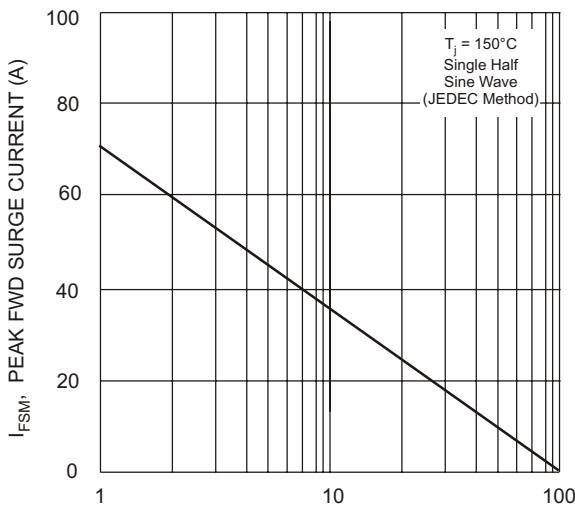


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

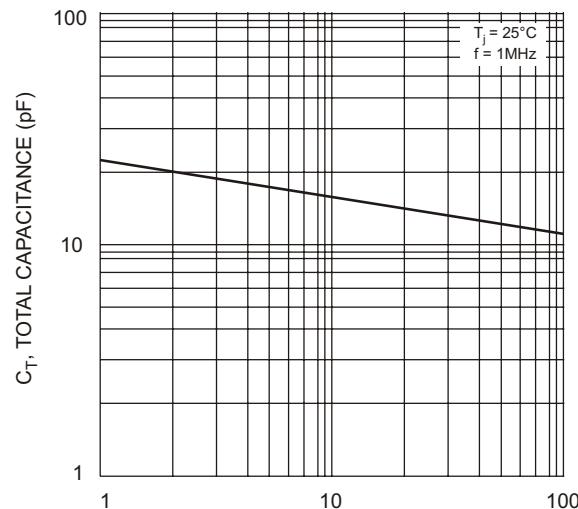


Fig. 4 Typical Total Capacitance

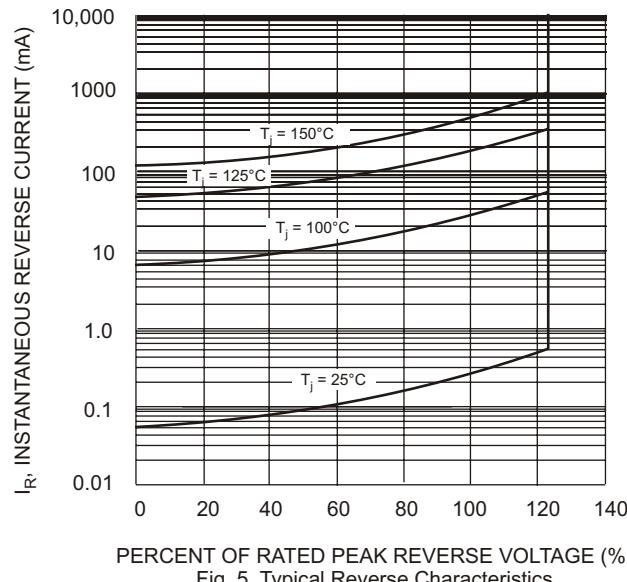


Fig. 5 Typical Reverse Characteristics

Ordering Information (Note 3)

| Device | Packaging | Shipping |
|------------|-----------|--------------------|
| KBP2005G-7 | KBP | 35 pieces per Tube |
| KBP201G-7 | KBP | 35 pieces per Tube |
| KBP202G-7 | KBP | 35 pieces per Tube |
| KBP204G-7 | KBP | 35 pieces per Tube |
| KBP206G-7 | KBP | 35 pieces per Tube |
| KBP208G-7 | KBP | 35 pieces per Tube |
| KBP210G-7 | KBP | 35 pieces per Tube |

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.
Example: KBP206G-7-F.