

Silicon Bridge Rectifiers



KBP200-G thru 2010-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

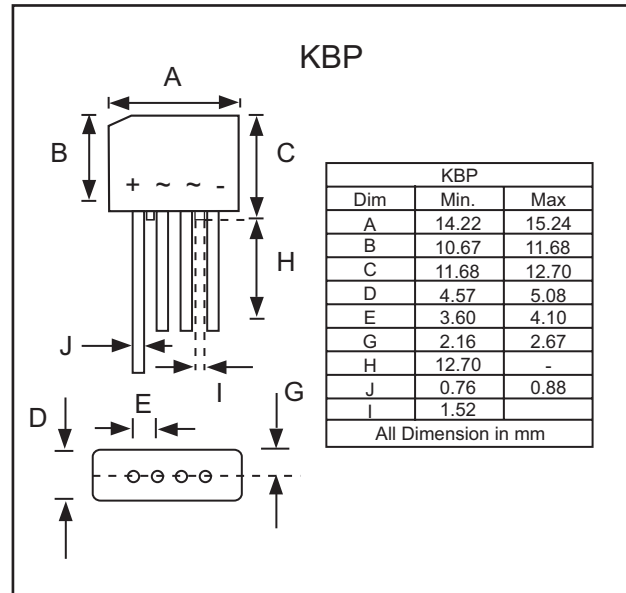
Forward Current: 2.0 Amp

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: 1.7 grams (approx.)
- Mounting position: Any



Maximum Ratings and Electrical Characteristics

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate currently by 20%.

| Characteristics | Symbol | KBP 200-G | KBP 201-G | KBP 202-G | KBP 204-G | KBP 206-G | KBP 208-G | KBP 2010-G | UNIT |
|---|-----------------|-------------|-----------|-----------|-----------|-----------|-----------|------------|----------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V_R | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note1) @ $T_A = 50^\circ\text{C}$ | I_o | 2.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60 | | | | | | | A |
| Forward Voltage (per element) @ $I_F=2.0\text{A}$ | V_{FM} | 1.1 | | | | | | | V |
| Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ | I_{RM} | 10 500 | | | | | | | μA |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 15 | | | | | | | A^2S |
| Typical Thermal Resistance (Note3) | $R_{\theta JA}$ | 30 | | | | | | | K/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +160 | | | | | | | $^\circ\text{C}$ |
| Typical Junction Capacitance per element (Note2) | C_J | 25 | | | | | | | pF |

- Note:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance junction to ambient mounted on PC board with 12mm² copper pad.

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Rating and Characteristic Curves (KBPP200-G ~ KBP2010-G)

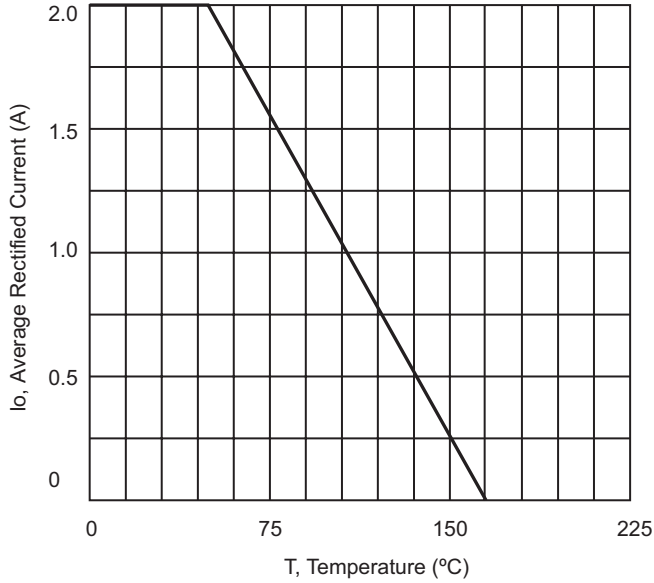


Fig1. Forward Current Derating Curve

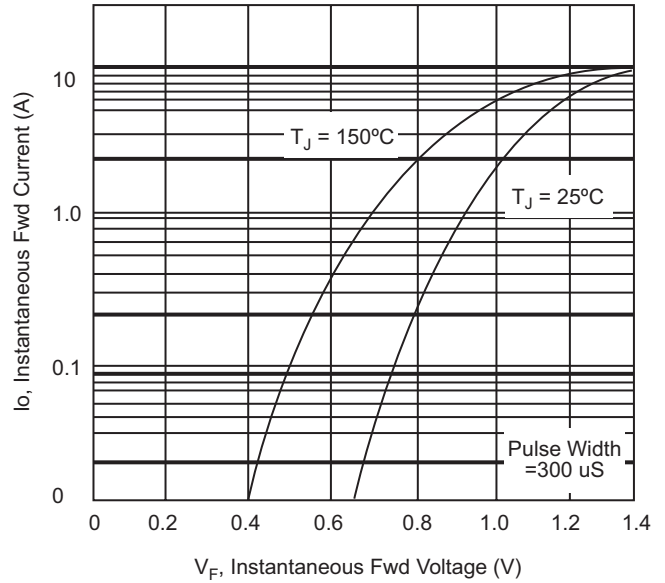


Fig2. Typical Fwd Characteristics

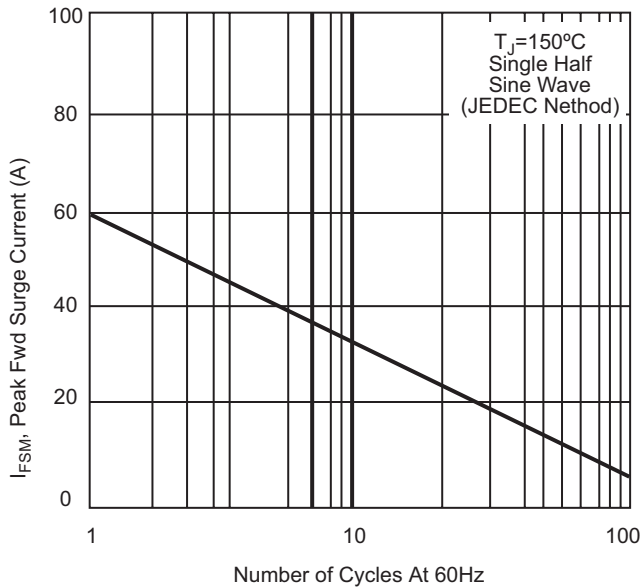


Fig3. Max Non-Repetitive Peak Fwd Surge Current

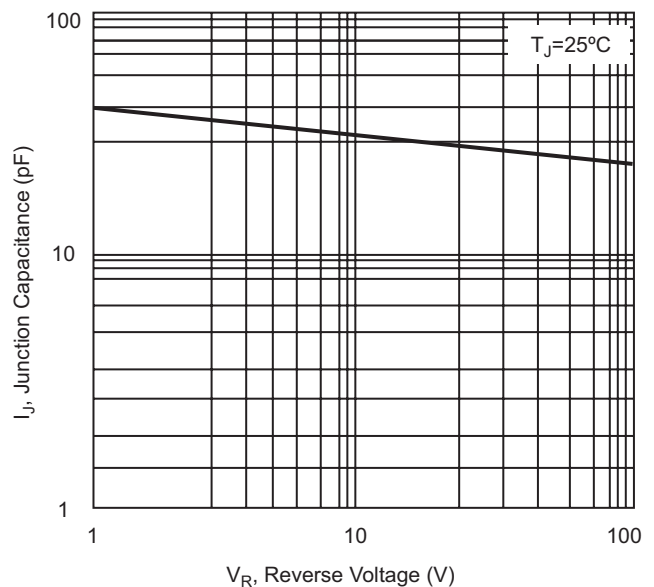


Fig4. Typical Junction Capacitance

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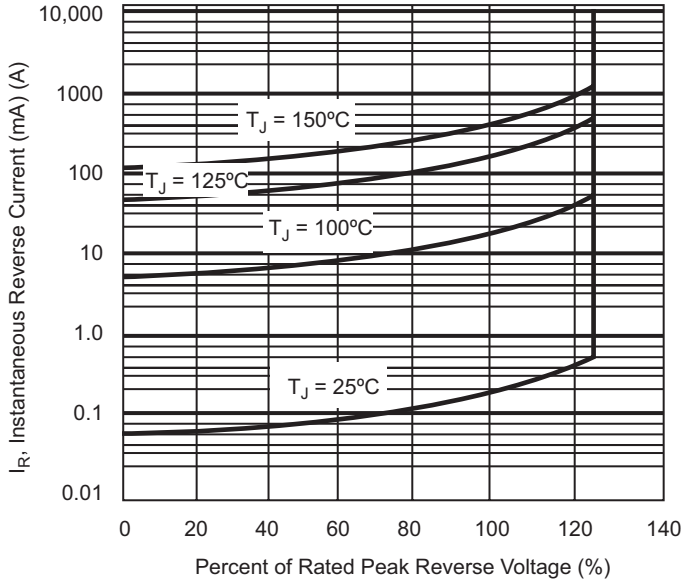


Fig5. Typical Reverse Characteristics