

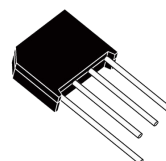
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 2.0 A**

### Features

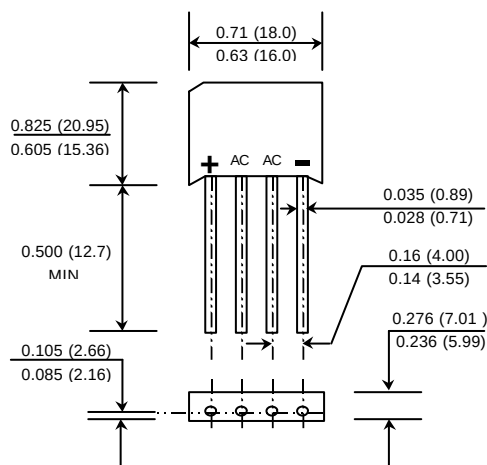
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



### KBP



Dimensions in inches and ( millimeter )

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

| Characteristic                                                                                                     | Symbol          | KBP 200     | KBP 201 | KBP 202 | KBP 204 | KBP 206 | KBP 208 | KBP 210 | Unit                 |
|--------------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------|---------|---------|---------|---------|---------|----------------------|
| Peak Repetitive Reverse Voltage                                                                                    | $V_{RRM}$       | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                    |
| Working Peak Reverse Voltage                                                                                       | $V_{RWM}$       |             |         |         |         |         |         |         |                      |
| DC Blocking Voltage                                                                                                | $V_R$           |             |         |         |         |         |         |         |                      |
| RMS Reverse Voltage                                                                                                | $V_{R(RMS)}$    | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                    |
| Average Rectified Output Current<br>(Note 1) $@T_A = 50^\circ\text{C}$                                             | $I_O$           | 2.0         |         |         |         |         |         |         | A                    |
| Non-Repetitive Peak Forward Surge Current<br>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 $@T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage $@T_A = 100^\circ\text{C}$          | $I_{RM}$        | 10<br>500   |         |         |         |         |         |         | $\mu\text{A}$        |
| Rating for Fusing ( $t < 8.3\text{ms}$ )                                                                           | $I^2t$          | 15          |         |         |         |         |         |         | $\text{A}^2\text{s}$ |
| Typical Junction Capacitance per element (Note 2)                                                                  | $C_j$           | 25          |         |         |         |         |         |         | pF                   |
| Typical Thermal Resistance (Note 3)                                                                                | $R_{\theta JA}$ | 30          |         |         |         |         |         |         | K/W                  |
| Operating and Storage Temperature Range                                                                            | $T_j, T_{STG}$  | -55 to +165 |         |         |         |         |         |         | $^\circ\text{C}$     |

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

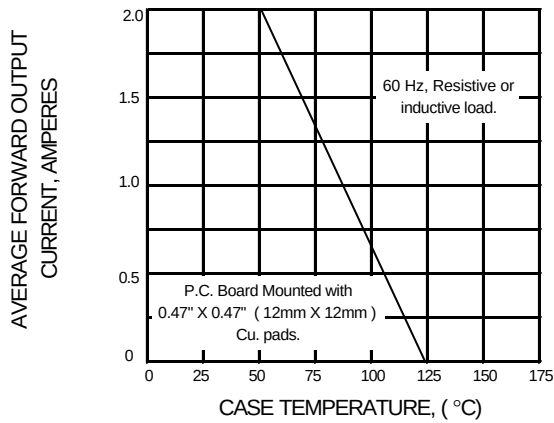
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

3. Thermal resistance junction to ambient mounted on PC board with 12mm<sup>2</sup> copper pad.

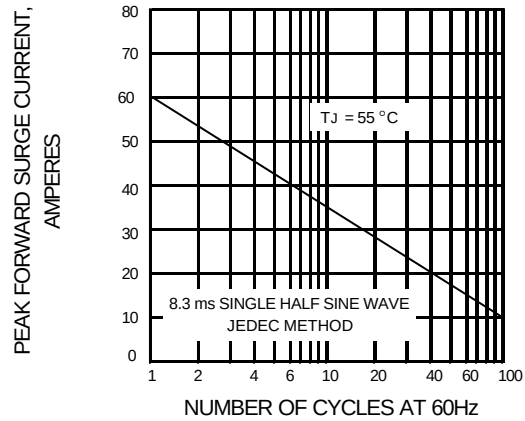


## RATING AND CHARACTERISTIC CURVES ( KBP200 - KBP210 )

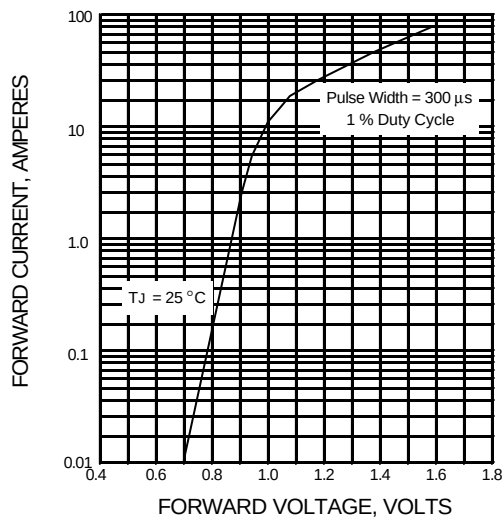
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

