

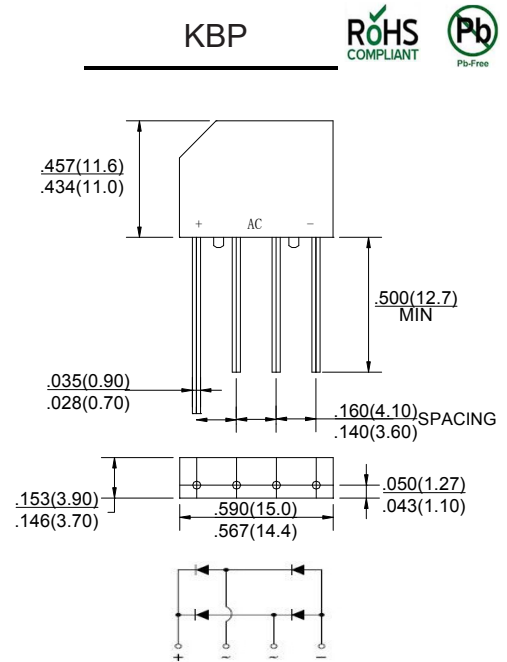
Single Phase 2.0Amp Glass Passivated Bridge Rectifier

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method
- Polarity 2026 : Polarity symbols marked on case
- Mounting Position: Any
- Weight : 0.069 ounce, 1.95 grams



Dimensions in inches and (millimeters)

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 | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 | Units |
|---|------------|-------------|--------|--------|--------|--------|--------|--------|---------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward output rectified current at $T_A=50^\circ\text{C}$ | $I_{(AV)}$ | 2.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50.0 | | | | | | | Amps |
| Rating for Fusing($t<8.3\text{ms}$) | I^2t | 10.3 | | | | | | | A^2s |
| Maximum instantaneous forward voltage at 2.0A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$ | I_R | 2 200 | | | | | | | μA |
| Typical Junction Capacitance (Note 1) | C_J | 23 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R_{qJA} | 28 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Unit mounted on P.C. board with 0.47" x 0.47" (12x12mm) copper pads, 0.375" (9.5mm) lead length.



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

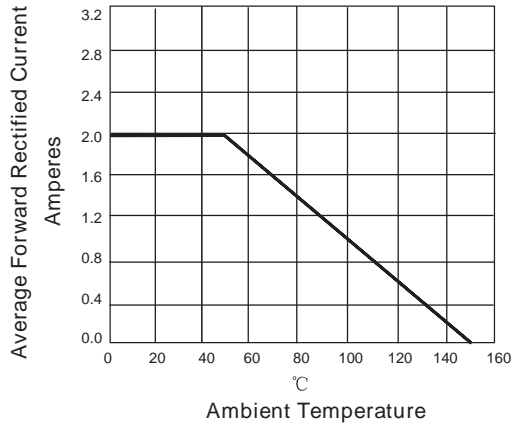


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

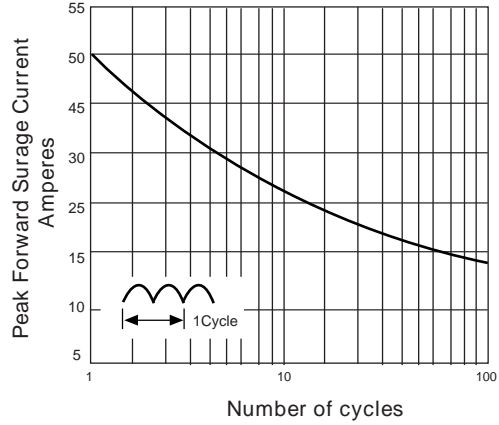


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

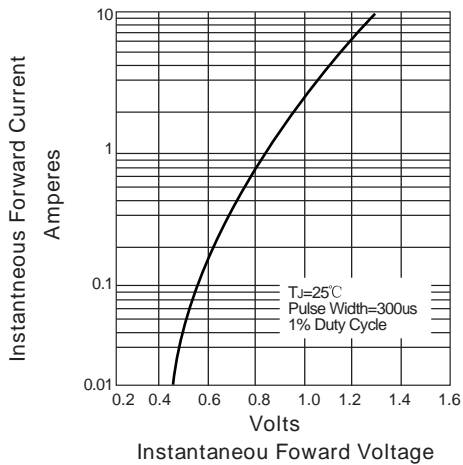


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

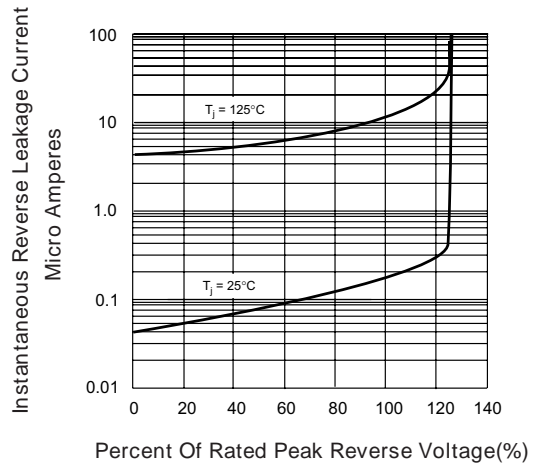
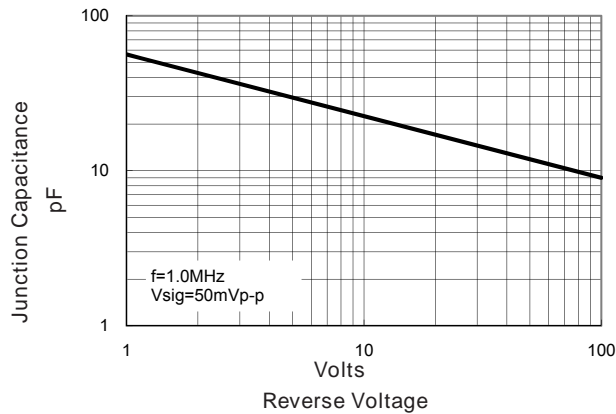
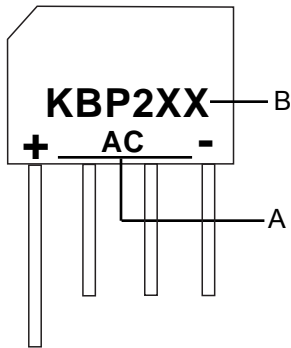


FIG. 5-TYPICAL JUNCTION CAPACITANCE



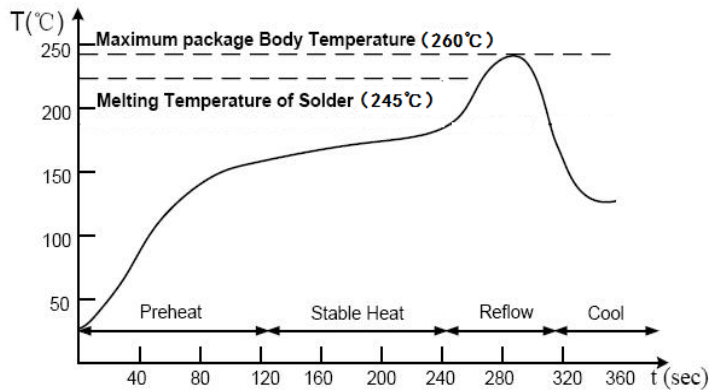


Marking



| Symbol | Explanation |
|--------|--------------------------------|
| A | Polarity Symbol |
| B | Product Name, X: 005,01.....10 |

Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.