



KBP2005 THRU KBP210

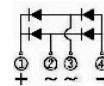
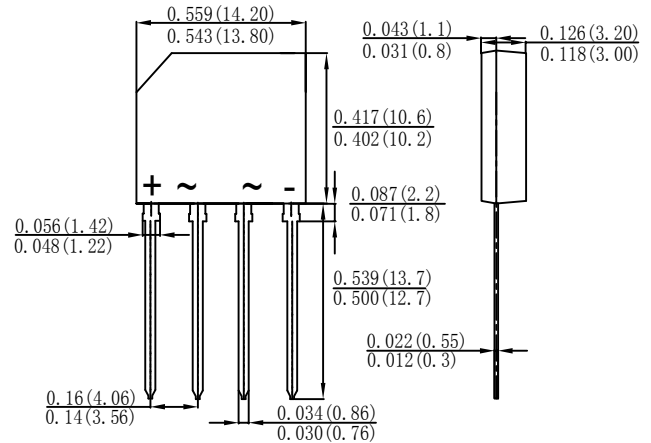
Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Amperes

SINGLE BRIDGE RECTIFIERS

Features

- ◆ Glass passivated die construction
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High surge current capability
- ◆ Plastic material-UL flammability 94V-0

KBP



Dimensions in inches and (millimeters)

Mechanical Data

- Case** : JEDEC KBP Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.0693 ounce, 1.35 grams

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 | MDD | MDD | MDD | MDD | MDD | MDD | MDD | UNITS |
|--|-----------------|-------------------------|--------|--------|--------|--------|--------|--------|---------------------------|
| | | KBP2005 | KBP201 | KBP202 | KBP204 | KBP206 | KBP208 | KBP210 | |
| Marking Code | | | | | | | | | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward output rectified current at $T_c=50^\circ\text{C}$ (Note 1) | $I_{(AV)}$ | 2.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 35 | | | | | | | A |
| Maximum instantaneous forward voltage drop per bridge element at 2.0A | V_F | 1.1 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^\circ\text{C}$ | | | | | | | μA |
| | | $T_A=125^\circ\text{C}$ | | | | | | | mA |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 25 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

- Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

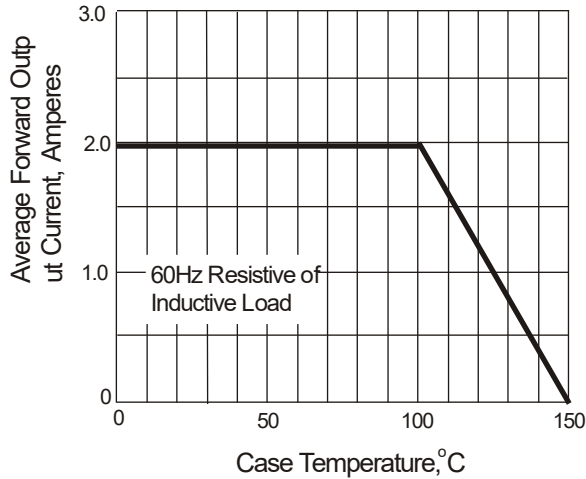


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

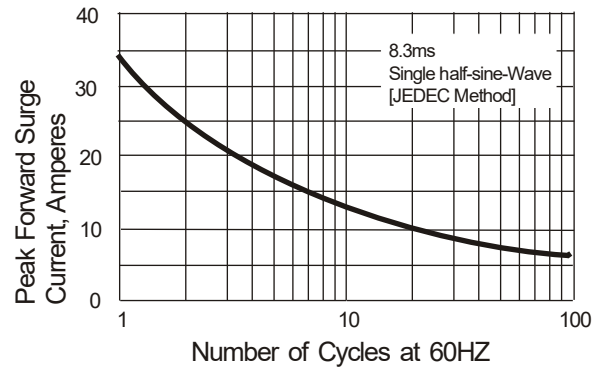


Fig. 3 Typical Instantaneous Forward Characteristics

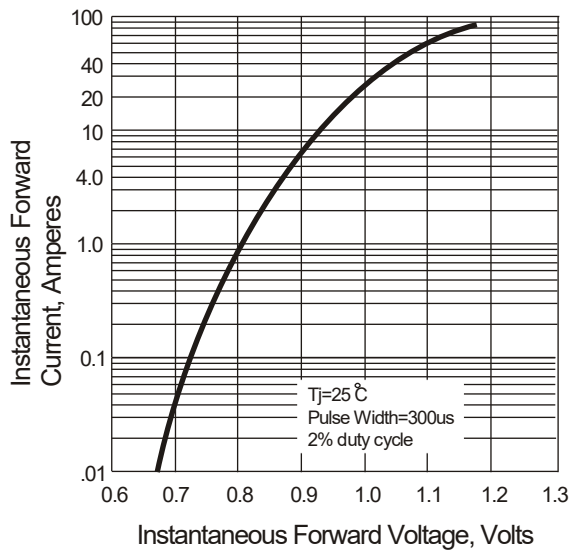


Fig. 4 Typical Reverse Characteristics

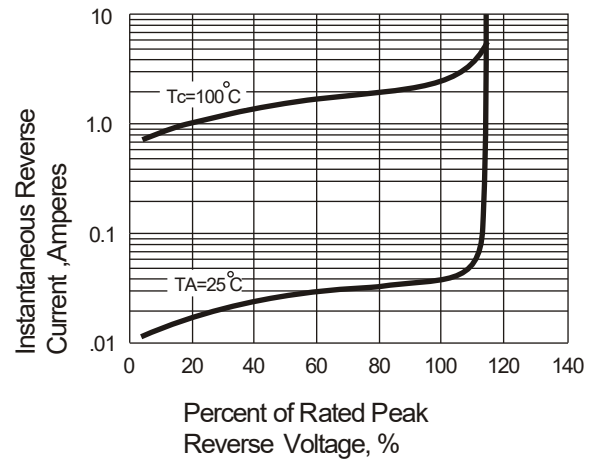


Fig. 5 Typical Junction Capacitance

