

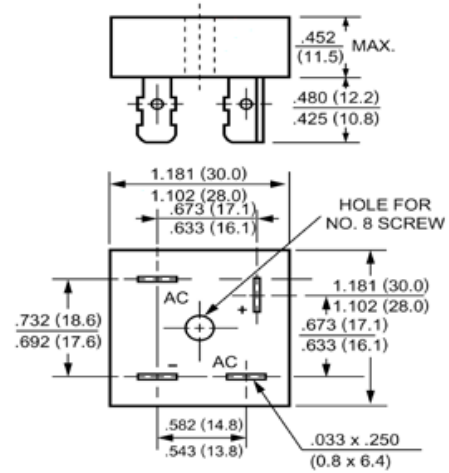
Features

- Electrically Isolated Metal Case for Maximum Heat Dissipation
- Surge Overload Ratings to 500 Amperes
- Low power loss,high efficiency
- Low reverse leakage current
- Case to terminal isolation voltage 2500V
- UL Recognized File # E-216968

Mechanical Data

- Case: Metal or molded plastic with heatsink integrally mounted in the bridge encapsulation
- Suffix letter "P" added to indicate plastic
- Terminals: Either plated 0.25" (6.35mm) Fasten lugs
- Suffix letter "W" added to indicate leads
- Mounting position: Any
- Weight: 1.0ounce, 30.0gram

KBPC



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, derate current by 20%.

| | Symbols | KBPC50005 | KBPC5001 | KBPC5002 | KBPC5004 | KBPC5006 | KBPC5008 | KBPC5010 | Units |
|---|-----------------|--------------|----------|----------|----------|----------|----------|----------|-------|
| Maximum Recurrent 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 Rectified Current at $T_C=55^\circ C$ | $I_{(AV)}$ | 50.0 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 400 | | | | | | | Amp |
| Maximum Forward Voltage at 25.0A DC and 25°C | V_F | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=125^\circ C$ | I_R | 10.0 1000 | | | | | | | uAmp |
| Typical Junction Capacitance (Note 1) | C_J | 300 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JC}$ | 2.6 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | | | | | | | °C |

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES

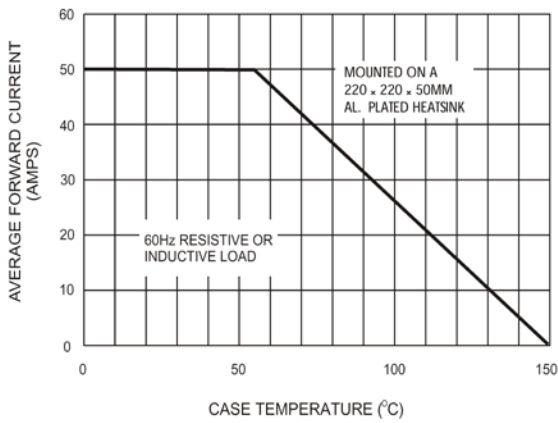


Figure 1. Forward Current Derating Curve

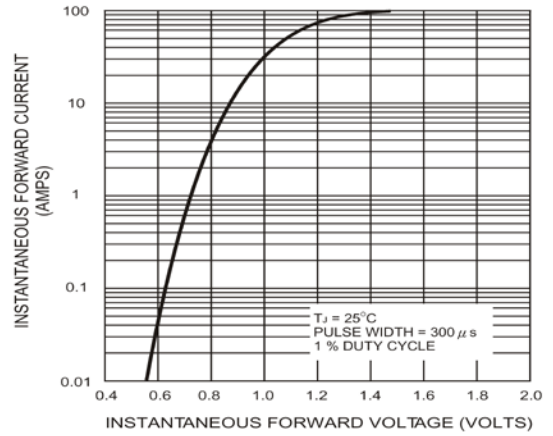


Figure 2. Typical Instantaneous Forward Characteristics Per Bridge Element

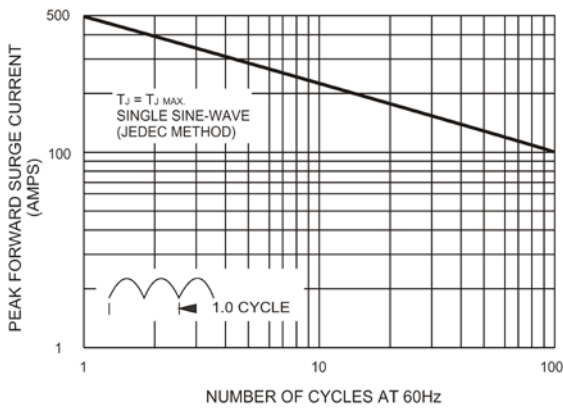


Figure 3. Maximum Non-repetitive Peak Forward Surge Current Per Bridge Element

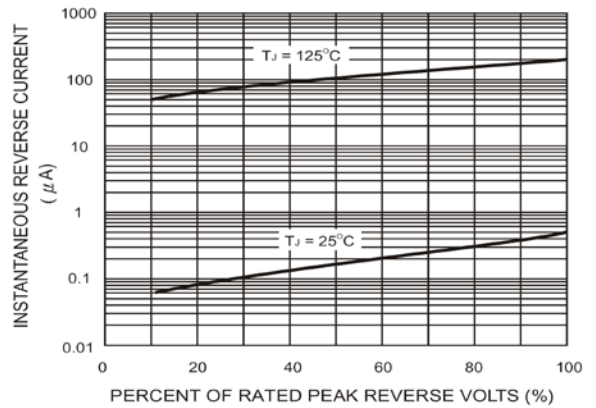


Figure 4. Typical Reverse Leakage Characteristics Per Bridge Element

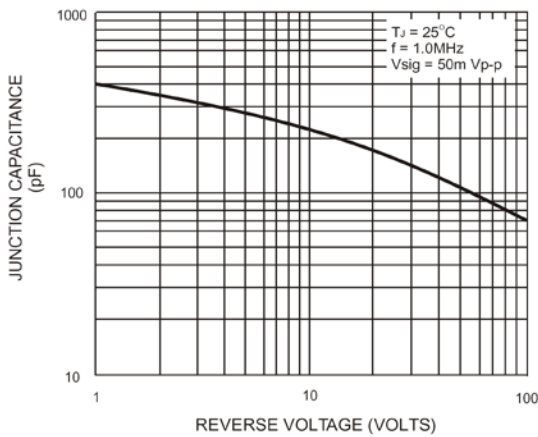


Figure 5. Typical Junction Capacitance Per Bridge Element

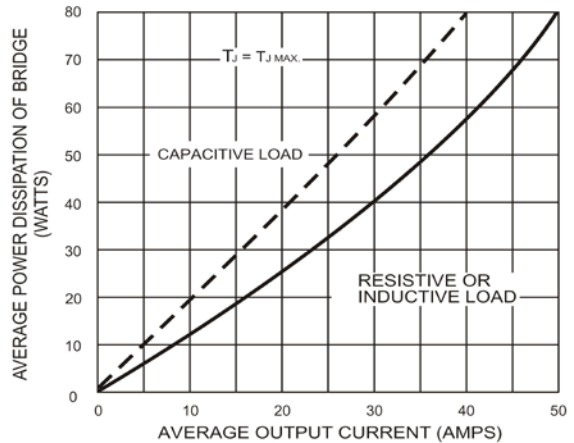


Figure 6. Maximum Power Dissipation