



KBP6005 THRU KBP610

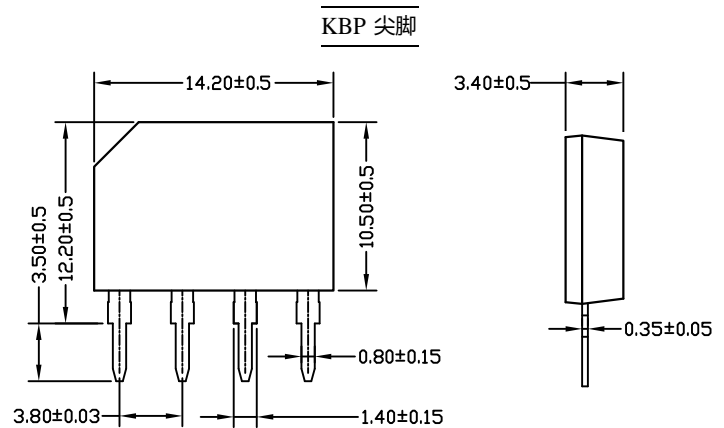
BRIDGE RECTIFIERS

FEATURES

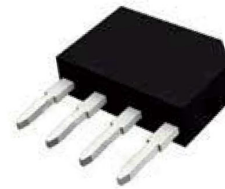
- UL Recognized File # E469616
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Glass passivated chip junction

MECHANICAL DATA

Case: Molded plastic, KBP
 Epoxy: UL 94V-O rate flame retardant
 Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
 Mounting position: Any
 Weight: 0.053ounce, 1.5gram



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 | KBP6005 | KBP601 | KBP602 | KBP604 | KBP606 | KBP608 | KBP610 | 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 .375"(9.5mm) Lead Length at $T_A=50$ | $I_{(AV)}$ | 6.0 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 120 | | | | | | | Amp |
| Maximum Forward Voltage at 3.0A DC and 25 °C | V_F | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$ | I_R | 10.0 500 | | | | | | | uAmp |
| Typical Junction Capacitance (Note 1) | C_J | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 30 | | | | | | | /W |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ | 11 | | | | | | | /W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | | | | | | | |

NOTES:

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

2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

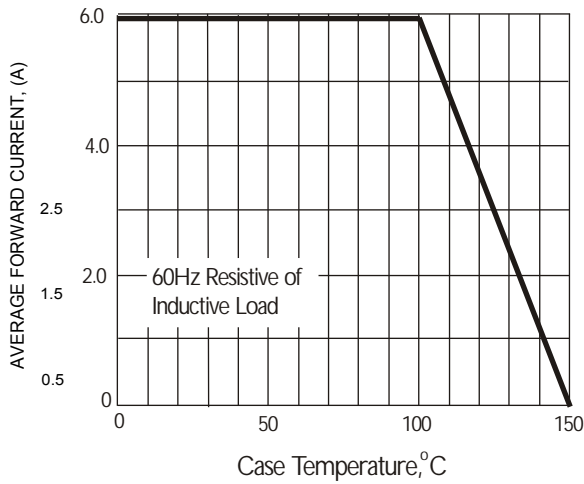


Fig. 2 Typical Fwd Characteristics

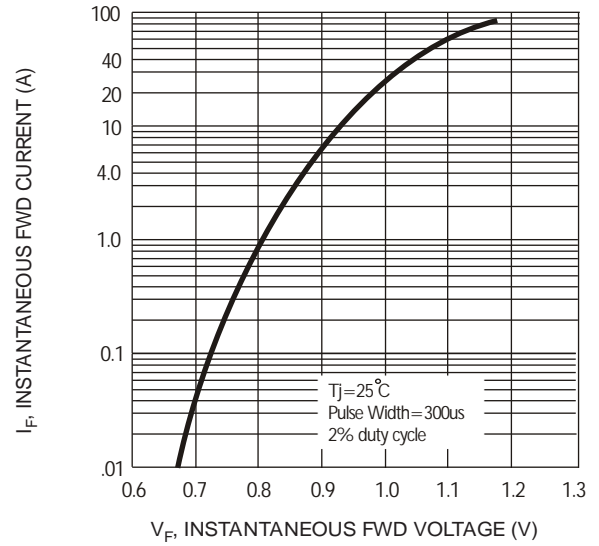


Fig. 3 Maximum Peak Forward Surge Current (per leg)

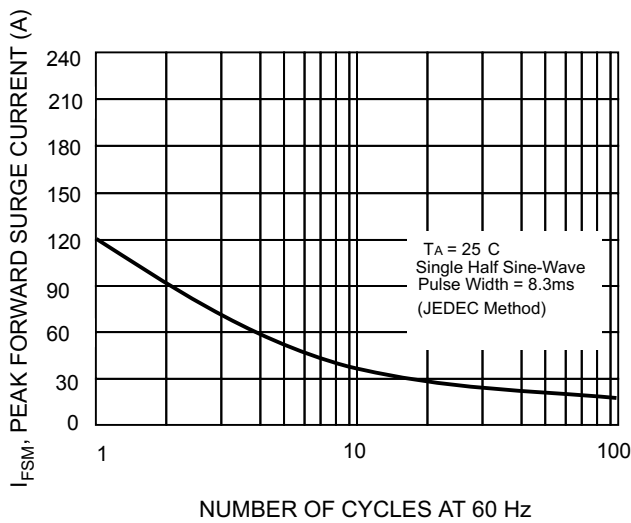


Fig. 4 Typical Junction Capacitance

