



# KBP4005 THRU KBP410

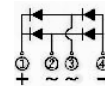
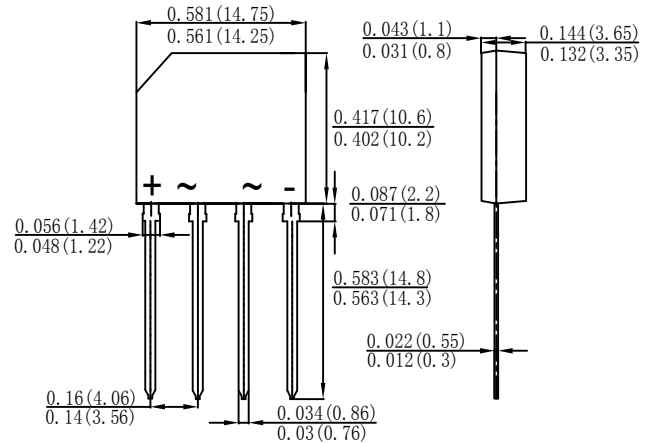
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

## SINGLE BRIDGE RECTIFIERS

### Features

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

**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** : 0.069 ounce, 1.95 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
		KBP4005	KBP401	KBP402	KBP404	KBP406	KBP408	KBP410	
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)	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80.0							A
Maximum instantaneous forward voltage drop per bridge element at 4.0A	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ\text{C}$ 5.0							$\mu\text{A}$
		$T_A=125^\circ\text{C}$ 0.5							mA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
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 1.3mm<sup>2</sup> solder pad.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



## Ratings And Characteristic Curves

Fig. 1 Forward Current Derating Curve

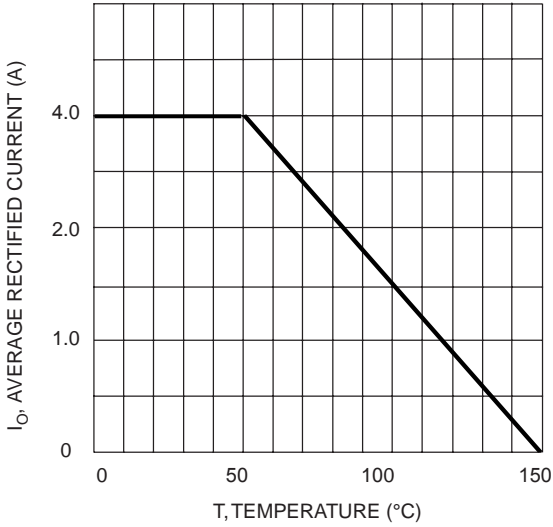


Fig. 2 Typical Fwd Characteristics

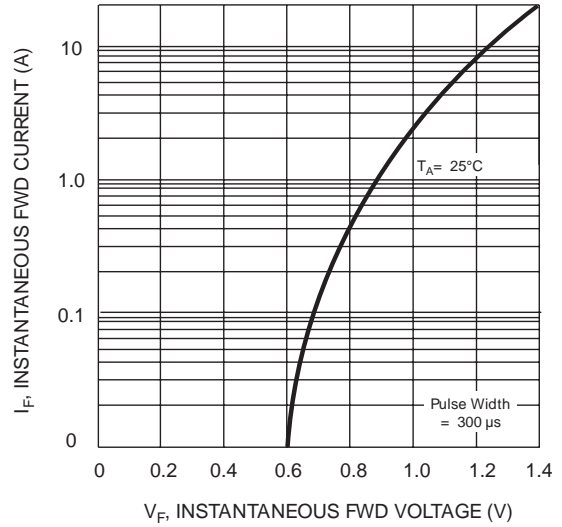


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

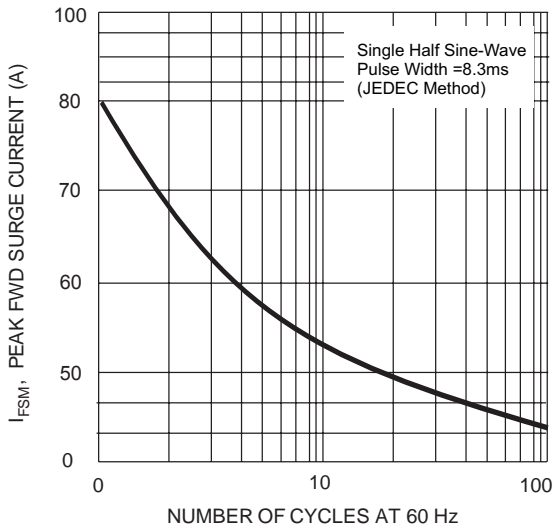
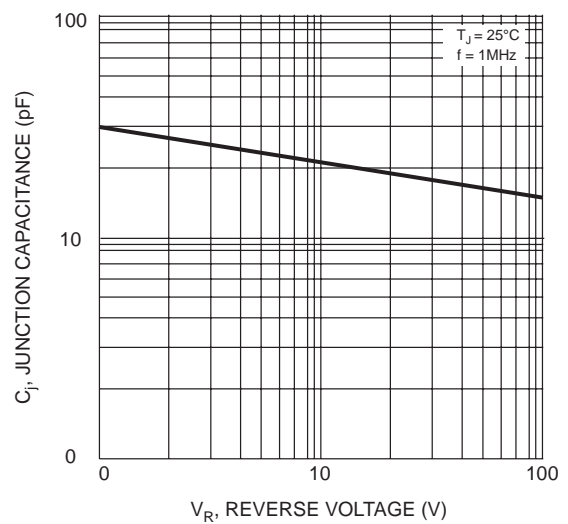


Fig. 4 Typical Junction Capacitance



The curve above is for reference only.