

2 A Single-Phase Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

KBP

Features

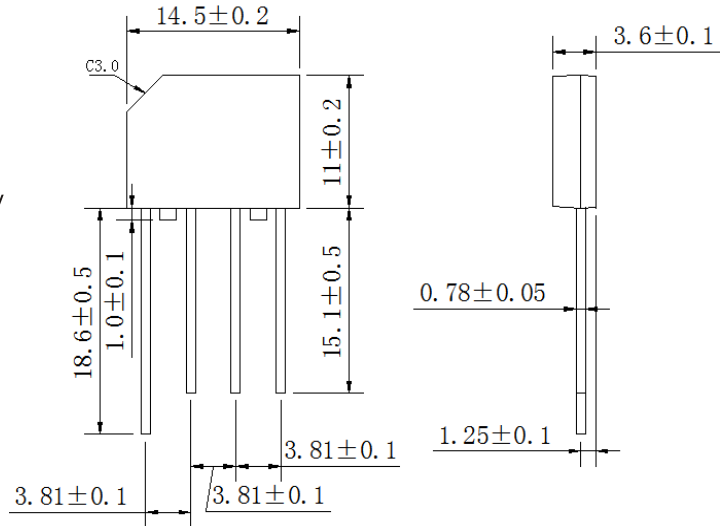
- This series is UL listed under the Recognized Component Index, file number E484648
- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique

Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting Position: Any



Dimensions in millimeters (1mm = 0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	KBP2005	KBP201	KBP202	KBP204	KBP206	KBP208	KBP210	unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 rectified output current at $T_A=40^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to + 150							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	KBP2005	KBP201	KBP202	KBP204	KBP206	KBP208	KBP210	Unit	
Maximum instantaneous forward voltage drop per leg at 2.0A	V_F	1.1								V
Maximum DC reverse current at rated $T_A=25^\circ\text{C}$ DC blocking voltage per element $T_A=125^\circ\text{C}$	I_R	10				500				μA

Notes: (1) Thermal resistance from Junction to Ambient on P.C. board mounting.
(2) Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

Fig. 1 Derating Curve for Output Rectified Current

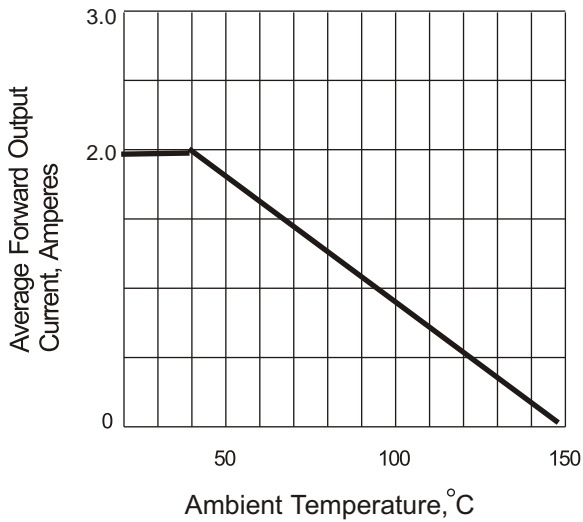


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

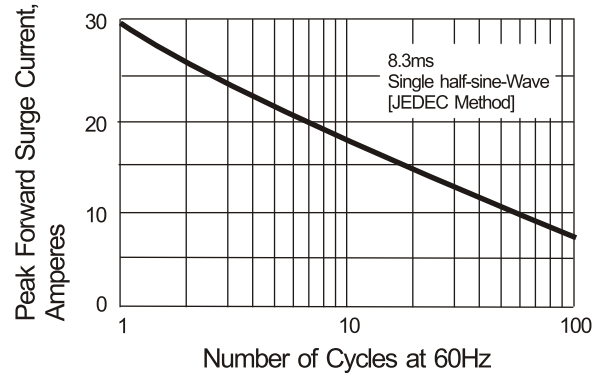


Fig. 3 Typical Instantaneous Forward Characteristics

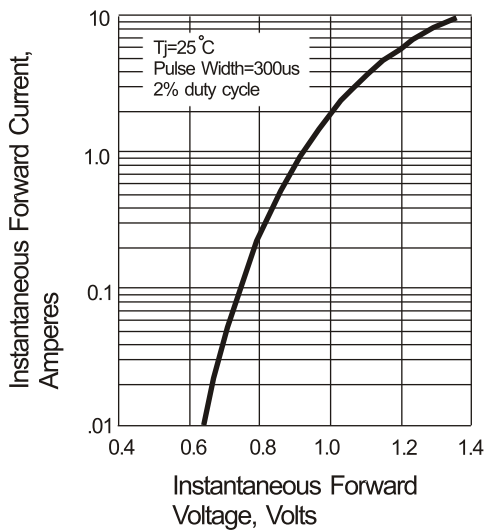


Fig. 4 Typical Reverse Characteristics

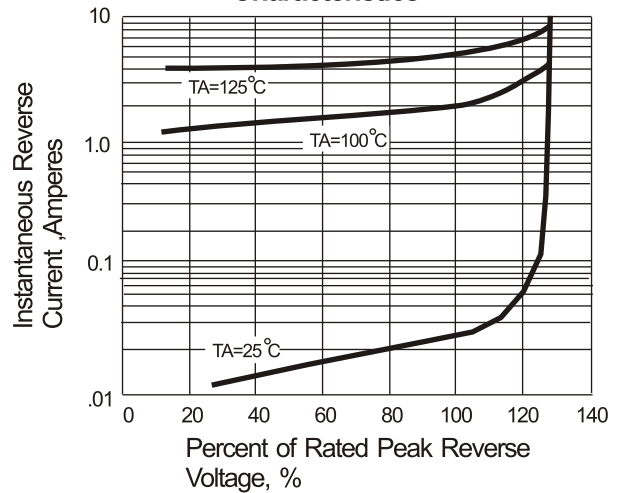


Fig. 5 Typical Junction Capacitance

