

KBP4005 THRU KBP410

2.0 A Single-Phase Silicon Bridge Rectifier

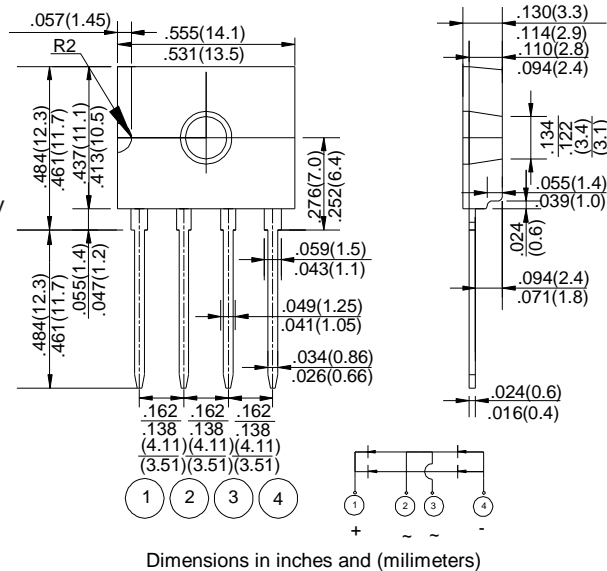
Rectifier Reverse Voltage 50 to 1000V

Features

- Ideal for printed circuit board mounting
- This series is UL listed under the Recognized Component Index, file number E142814
- 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
 Weight: 0.2 ounce, 5.6 grams (approx)



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	KBP 4005	KBP 401	KBP 402	KBP 404	KBP 406	KBP 408	KBP 410	unit	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V	
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V	
Maximum average forward rectified output current at TA=100°C (with heatsink)	IF(AV)					4.0				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM					45				A
Rating for fusing (t<8.3ms)	I ² t					14.91				A ² sec
Typical thermal resistance per element (with heatsink) (1)	ReJA					55				°C / W
Operating junction and storage temperature range	TJ, TSTG					-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	KBP 4005	KBP 401	KBP 402	KBP 404	KBP 406	KBP 408	KBP 410	Unit	
Maximum instantaneous forward voltage drop per leg at 4.0A	VF					1.1				V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR					10 1000				μA

Notes: (1) Thermal resistance from Junction to Ambient on P.C.board mounting.

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

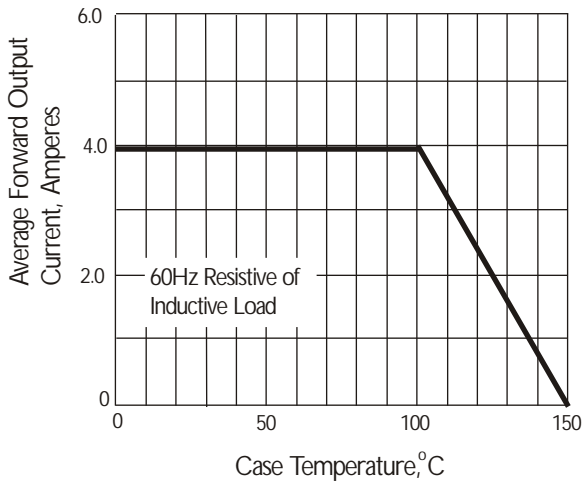


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

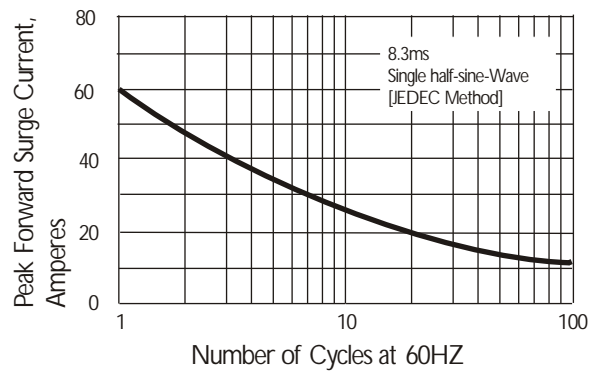


Fig. 3 Typical Instantaneous Forward Characteristics

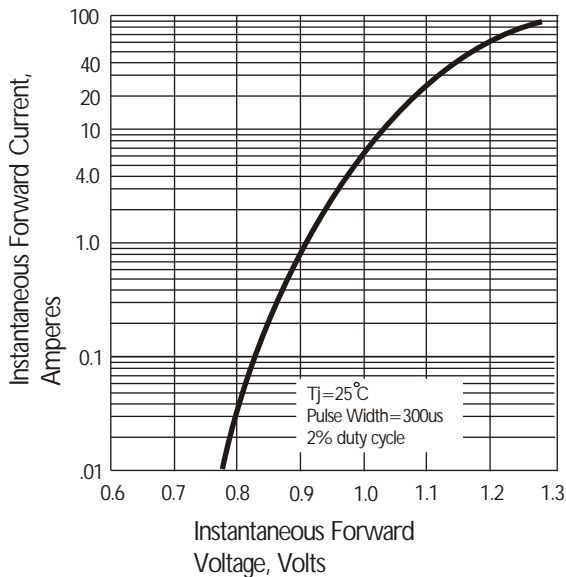


Fig. 4 Typical Reverse Characteristics

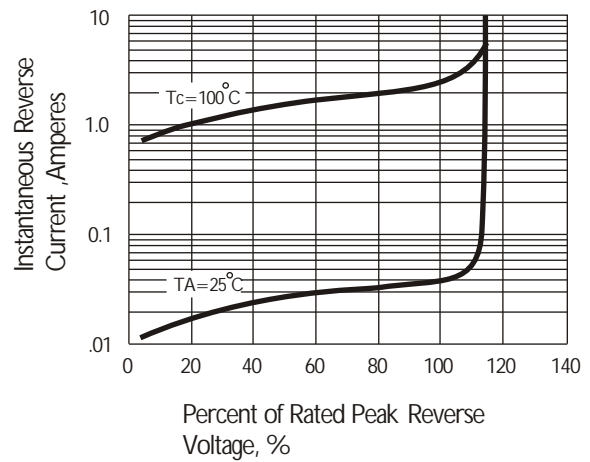


Fig. 5 Typical Junction Capacitance

