

# KBP200-KBP210 SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 - 1000V CURRENT: 2.0 A

#### **Features**

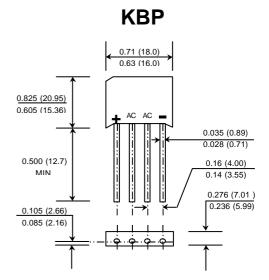
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E157705

## **Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.7 grams (approx.)
- Mounting Position: AnyMarking: Type Number







Dimensions in inches and (millimeter)

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

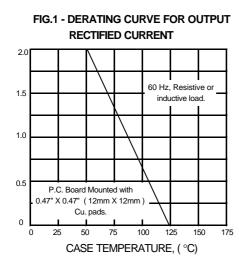
Characteristic		Symbol	KBP 200	KBP 201	KBP 202	KBP 204	KBP 206	KBP 208	KBP 210	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		VRRM VRWM VR	50	100	200	400	600	800	1000	>
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T <sub>A</sub> = 50°C		lo	2.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	60							А
Forward Voltage (per element)	@I <sub>F</sub> = 2.0A	VFM	1.1					V		
Peak Reverse Current At Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C @T <sub>A</sub> = 100°C	IRM	10 500				μΑ			
Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	15						A <sup>2</sup> s	
Typical Junction Capacitance per element (Note 2)		Cj	25							pF
Typical Thermal Resistance (Note 3)		R ⊕ JA	30							K/W
Operating and Storage Temperature Range		Tj, TSTG	-55 to +165							°C

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  - 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
  - 3. Thermal resistance junction to ambient mounted on PC board with 12mm² copper pad.



# RATING AND CHARACTERISTIC CURVES (KBP200 - KBP210)

AVERAGE FORWARD OUTPUT CURRENT, AMPERES



PEAK FORWARD SURGE CURRENT, AMPERES

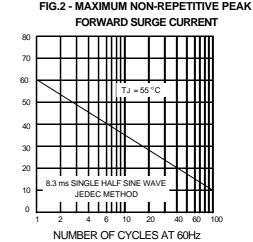


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

PER DIODE

100

Pulse Width = 300 μs —
1 % Duty Cycle

1 % Duty Cycle

1 7 J = 25 °C

0.1

0.01

0.04

0.6

0.8

1.0

1.2

1.4

1.6

1.8

FORWARD VOLTAGE, VOLTS

#### FIG.4 - TYPICAL REVERSE CHARACTERISTICS

