

# KBP2005G - KBP210G

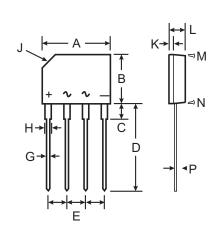
## 2.0A GLASS PASSIVATED BRIDGE RECTIFIER

#### **Features**

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V<sub>RMS</sub>
- Low Reverse Leakage Current
- Surge Overload Rating to 65A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- Lead Free Finish, RoHS Compliant (Note 3)

# **Mechanical Data**

- Case: KBP
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Tin. Plated Leads, Solderable per MIL-STD-202, Method 208 (§3)
- Polarity: Marked on Body
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: 1.52 grams (approximate)



КВР						
Dim	Min	Max				
Α	14.25	14.75				
В	10.20	10.60				
С	2.29 Typical					
D	14.25	14.73				
Е	3.56	4.06				
G	0.76	0.86				
Н	1.17	1.42				
J	2.8 X 45° Chamfer					
K	0.80	1.10				
L	3.35	3.65				
М	3° Nominal					
N	2° Nominal					
Р	0.30	0.64				
All Dimensions in mm						

## Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

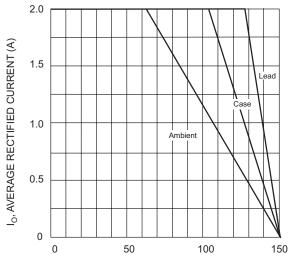
Single phase, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 206G	KBP 208G	KBP 210G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T <sub>C</sub> = 105°C		2.0					Α		
Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load		65					Α		
Forward Voltage per element @ I <sub>F</sub> = 2.0A		1.1					V		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		5.0 500					μΑ		
Typical Total Capacitance per Element (Note 2)		25					pF		
Typical Thermal Resistance (Note 1)		14					°C/W		
Operating and Storage Temperature Range		-65 to +150				°C			

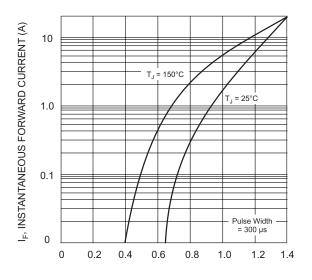
Notes: 1. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.

- 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
- 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

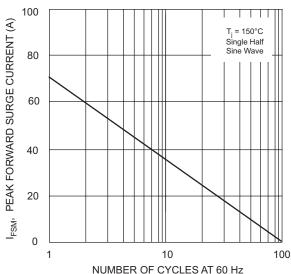




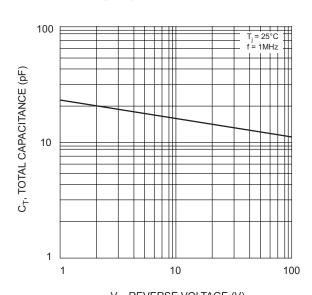
T, TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



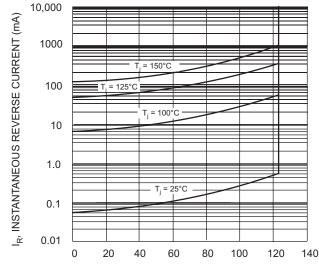
 $V_{\text{F}}$ , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Forward Surge Current



 $\label{eq:VR} {\rm V_{R},\ REVERSE\ VOLTAGE\ (V)}$  Fig. 4 Typical Total Capacitance, Per Element



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics



## Ordering Information (Note 4)

Device	Packaging	Shipping	
KBP2005G	KBP	35 pieces per Tube	
KBP201G	KBP	35 pieces per Tube	
KBP202G	KBP	35 pieces per Tube	
KBP204G	KBP	35 pieces per Tube	
KBP206G	KBP	35 pieces per Tube	
KBP208G	KBP	35 pieces per Tube	
KBP210G	KBP	35 pieces per Tube	

Notes:

4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02008.pdf.

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