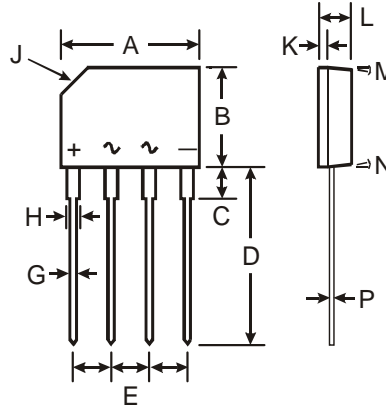


**Features**

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V<sub>RMS</sub>
- Low Reverse Leakage Current
- Surge Overload Rating to 40A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- **Lead Free Finish, RoHS Compliant (Note 2)**

**Mechanical Data**

- Case: KBP
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Finish – Matte Tin. Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Marking: Type Number
- Weight: 1.52 grams (approximate)



KBP		
Dim	Min	Max
A	14.25	14.75
B	10.20	10.60
C	2.29 Typical	
D	14.25	14.73
E	3.56	4.06
G	0.76	0.86
H	1.17	1.42
J	2.8 X 45° Chamfer	
K	0.80	1.10
L	3.35	3.65
M	3° Nominal	
N	2° Nominal	
P	0.30	0.64
All Dimensions in mm		

**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 005G	KBP 01G	KBP 02G	KBP 04G	KBP 06G	KBP 08G	KBP 10G	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	
DC Blocking Voltage	V <sub>R</sub>								
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	I <sub>O</sub>	1.5							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	40							A
Forward Voltage per element @ I <sub>F</sub> = 1.5A	V <sub>FM</sub>	1.1							V
Peak Reverse Current @ T <sub>C</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>C</sub> = 125°C	I <sub>RM</sub>	5.0 500							μA
Typical Total Capacitance per (Note 1)	C <sub>T</sub>	20							pF
Typical Thermal Resistance, Junction to Case	R <sub>θJC</sub>	18							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150							°C

- Notes:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
  2. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.
  3. Unit mounted on 300 x 300 x 1.6mm aluminum plate heat sink.

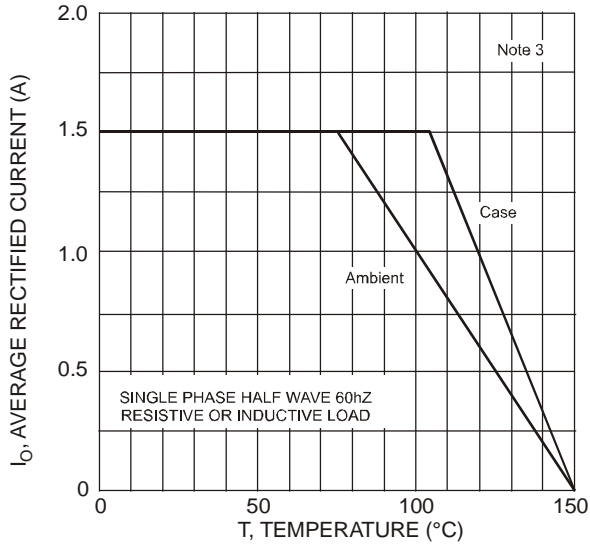


Fig. 1 Forward Current Derating Curve

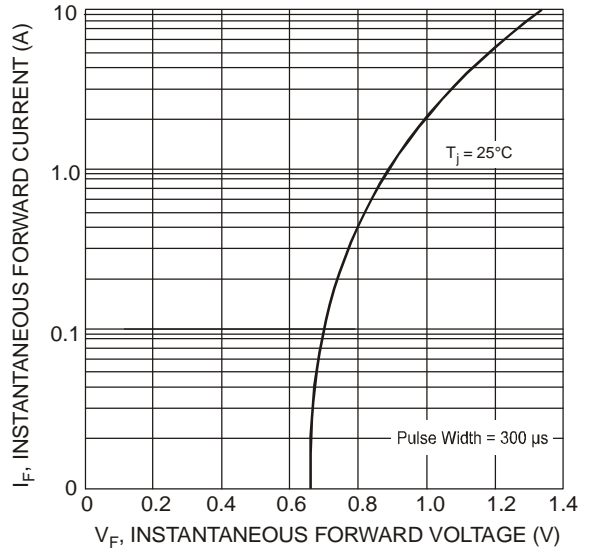


Fig. 2 Typical Forward Characteristics

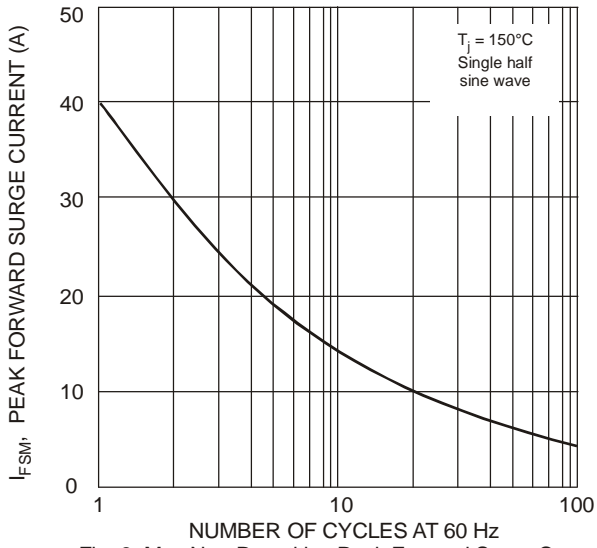


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

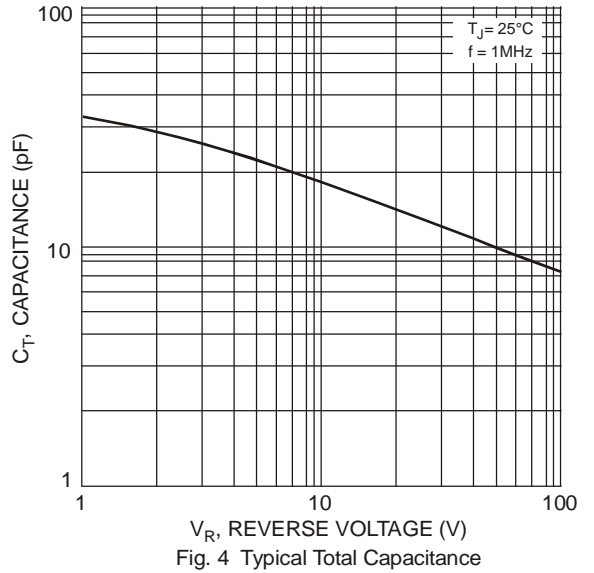


Fig. 4 Typical Total Capacitance

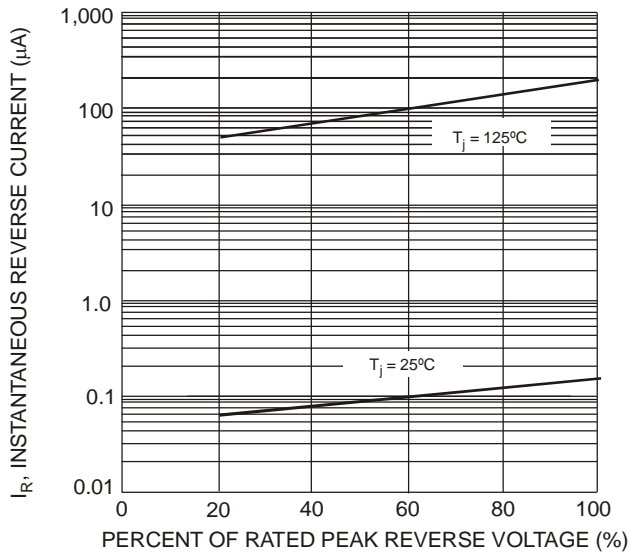


Fig. 5 Typical Reverse Characteristics

**Ordering Information** (Note 4)

Device	Packaging	Shipping
KBP005G	KBP	35 pieces per Tube
KBP01G	KBP	35 pieces per Tube
KBP02G	KBP	35 pieces per Tube
KBP04G	KBP	35 pieces per Tube
KBP06G	KBP	35 pieces per Tube
KBP08G	KBP	35 pieces per Tube
KBP10G	KBP	35 pieces per Tube

Notes: 4. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**IMPORTANT NOTICE**

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

**LIFE SUPPORT**

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Diodes Incorporated:](#)

[KBP04G](#) [KBP10G](#) [KBP005G](#) [KBP01G](#) [KBP02G](#) [KBP06G](#) [KBP08G](#)