KBP005G - KBP10G

1.5A GLASS PASSIVATED BRIDGE RECTIFIER

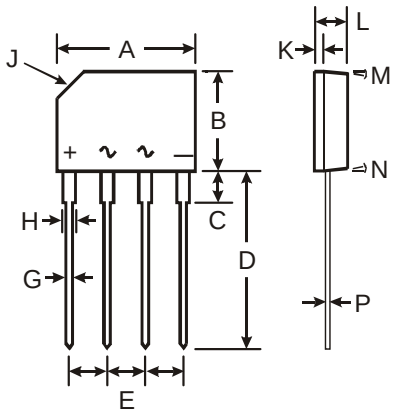
Please click here to visit our online spice models database.

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- 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_A = 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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T_C = 105°C	I_O	1.5							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	40							A
Forward Voltage per element @ I_F = 1.5A	V_{FM}	1.1							V
Peak Reverse Current @T_C = 25°C at Rated DC Blocking Voltage @ T_C = 125°C	I_{RM}	5.0 500							µA
Typical Total Capacitance per (Note 1)	C_T	20							pF
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	18							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-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.

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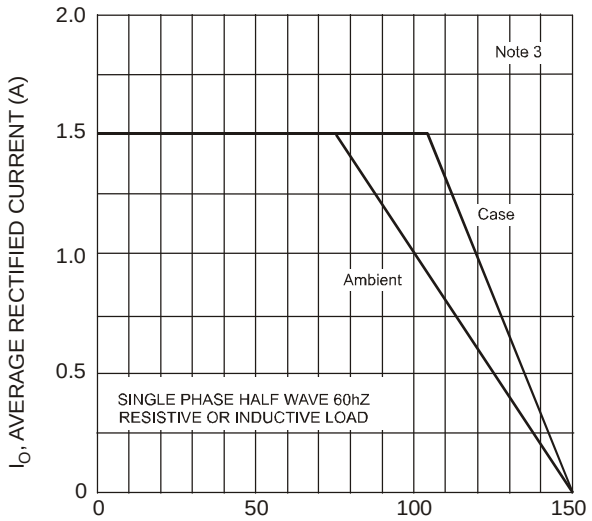


Fig. 1 Forward Current Derating Curve

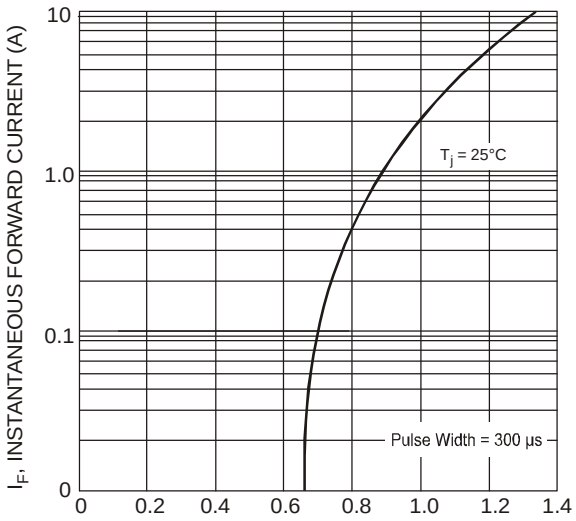


Fig. 2 Typical Forward Characteristics

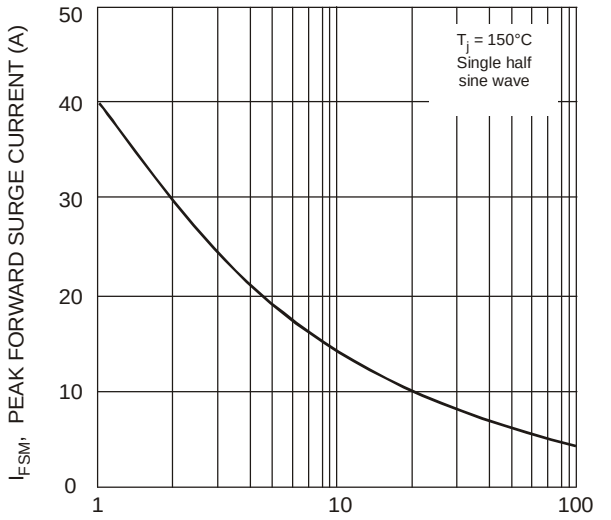


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

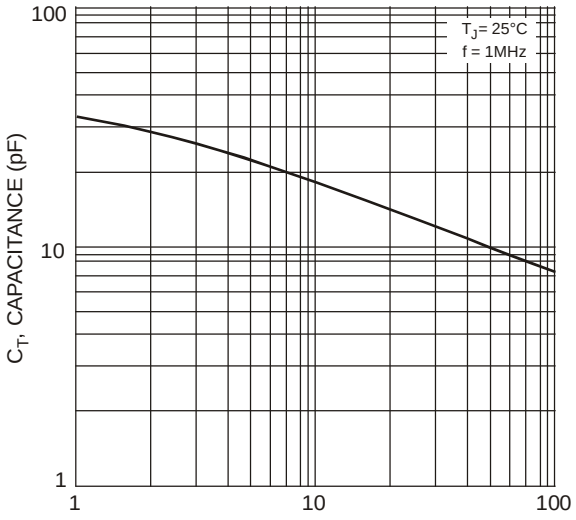


Fig. 4 Typical Total Capacitance

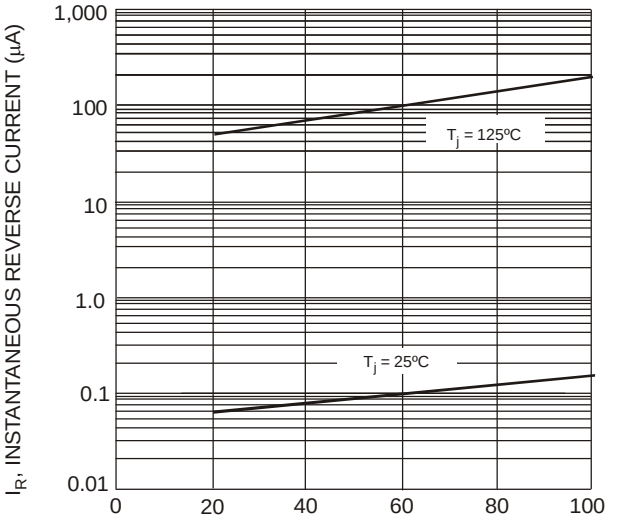


Fig. 5 Typical Reverse Characteristics

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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.

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