KBP005G - KBP10G

1.5A GLASS PASSIVATED BRIDGE RECTIFIER

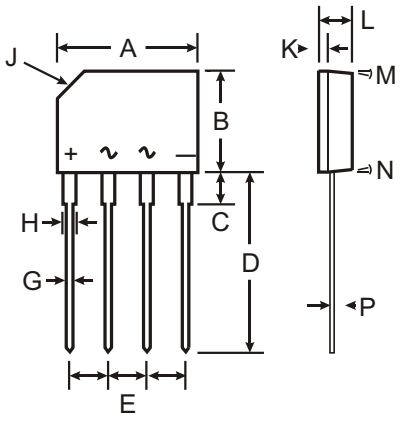
SPICE MODELS: KBP005G KBP01G KBP02G KBP04G KBP06G KBP08G KBP10G

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
- Plastic Material - UL Flammability Classification 94V-0
- UL Listed Under Recognized Component Index, File Number E94661

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 3
- Polarity: As Marked on Body
- Approx. Weight: 1.52 grams
- Mounting Position: Any
- Marking: Type Number



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, 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 (JEDEC method)	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 (Note 2)	$R_{\theta JC}$	18							°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Notes: 1. Thermal resistance from junction to case per element. Unit mounted on 300 x 300 x 1.6mm aluminum plate heat sink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

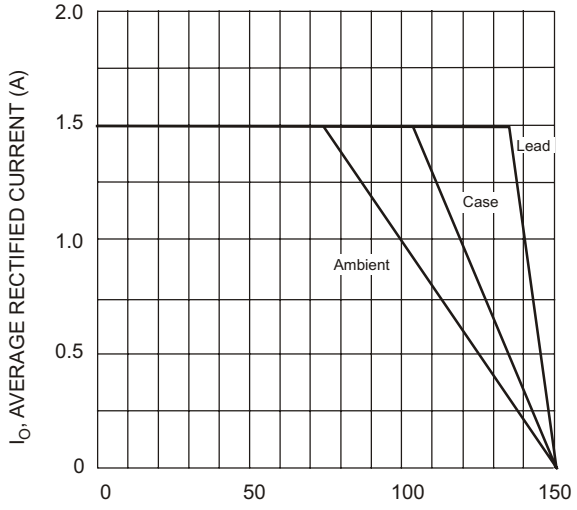


Fig. 1 Forward Current Derating Curve

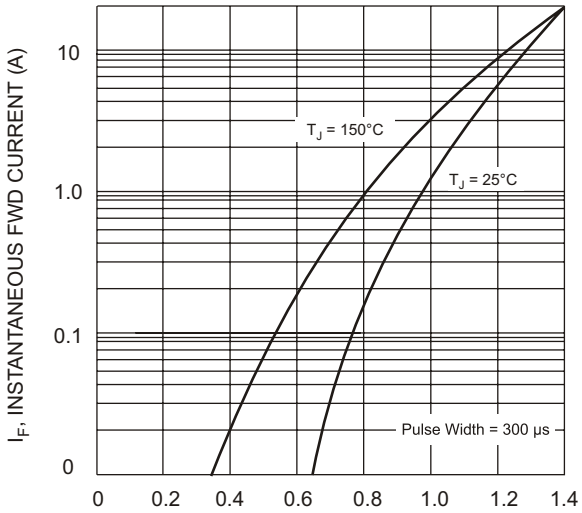


Fig. 2 Typical Forward Characteristics

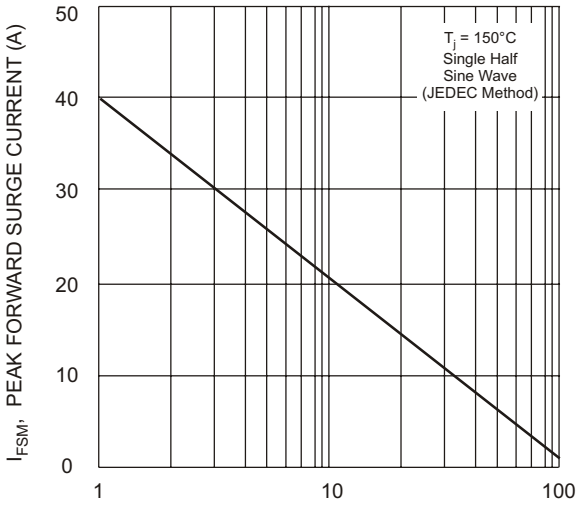


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

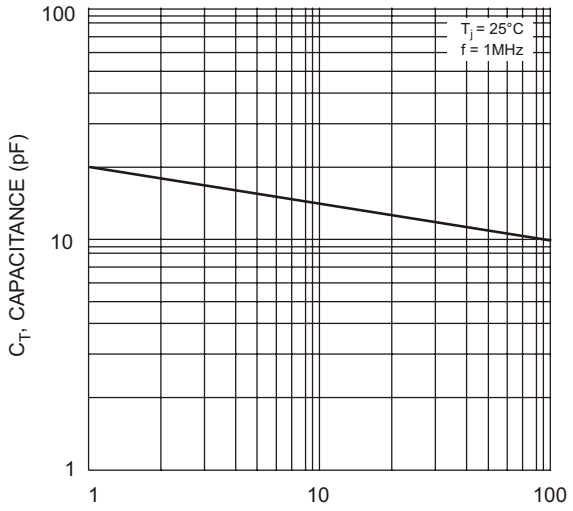


Fig. 4 Typical Total Capacitance

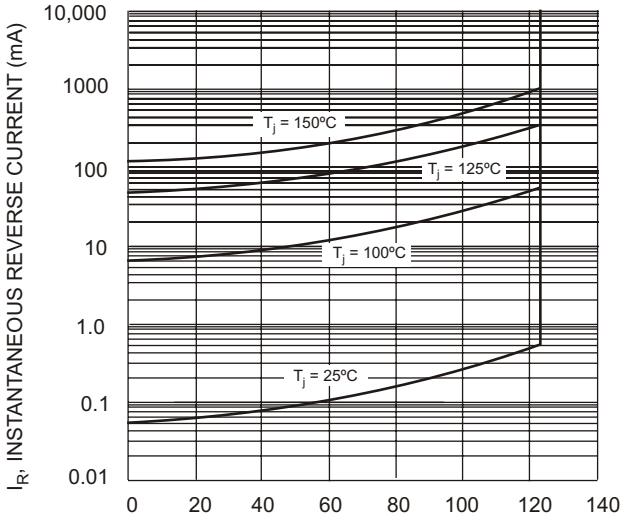


Fig. 5 Typical Reverse Characteristics

Ordering Information (Note 3)

Device	Packaging	Shipping
KBP005G-7	KBP	35 pieces per Tube
KBP01G-7	KBP	35 pieces per Tube
KBP02G-7	KBP	35 pieces per Tube
KBP04G-7	KBP	35 pieces per Tube
KBP06G-7	KBP	35 pieces per Tube
KBP08G-7	KBP	35 pieces per Tube
KBP10G-7	KBP	35 pieces per Tube

Notes: 3. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.
4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above. Example: KBP06G-7-F.