

KBJ4005G - KBJ410G

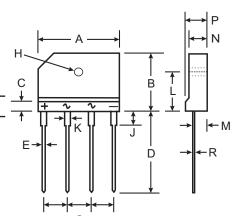
4.0A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 120A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- Lead Free Finish, RoHS Compliant (Note 4)

Mechanical Data

- Case: KBJ
- 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 (e3)
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: 4.6 grams (approximate)



KBJ					
Dim	Min	Max			
Α	24.80	25.20			
В	14.70	15.30			
С	4.00 Nominal				
D	17.20	17.80			
E	0.90	1.10			
G	7.30	7.70			
Н	3.10 ∅	3.40 ∅			
J	3.30	3.70			
K	1.50	1.90			
L	9.30	9.70			
M	2.50	2.90			
N	3.40	3.80			
Р	4.40	4.80			
R	0.60	0.80			
All Dimensions in mm					

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

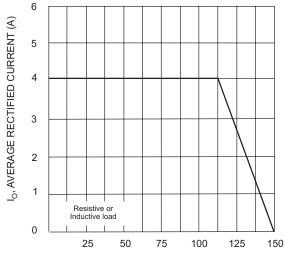
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	S	Symbol	KBJ 4005G	KBJ 401G	KBJ 402G	KBJ 404G	KBJ 406G	KBJ 408G	KBJ 410G	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	١	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _C =	115°C	Io				4.0				Α
Non-Repetitive Peak Forward Surge Current, 8.3 ms half-sine-wave superimposed on rated load	single	I _{FSM}				120				Α
Forward Voltage per element @ I _F :	= 2.0A	V_{FM}				1.0				V
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	25°C 125°C	I _{RM}				5.0 500				μΑ
I ² t Rating for Fusing, t <8.3ms (Note 3)		I ² t	60					A ² s		
Typical Total Capacitance per Element (Note 1)		Ст	40					pF		
Typical Thermal Resistance (Note 2)		R ₀ JC	5.5					°C/W		
Operating and Storage Temperature Range		Tj, T _{STG}	-65 to +150				°C			

1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

- 2. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.
- 3. Non-repetitive, for t >1ms and <8.3ms.
- 4. RoHs revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.





 $\mathsf{T}_\mathsf{C},\,\mathsf{CASE}\,\mathsf{TEMPERATURE}\,(^\circ\mathsf{C})$ Fig. 1 Forward Current Derating Curve

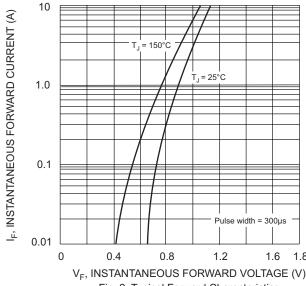
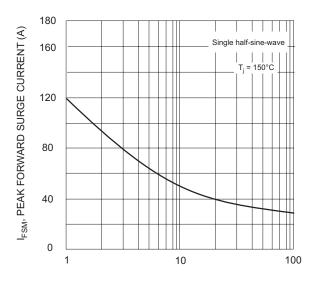


Fig. 2 Typical Forward Characteristics



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

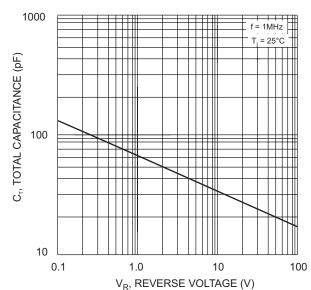
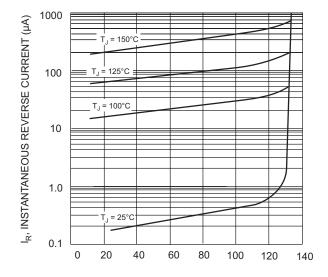


Fig. 4 Typical Total Capacitance, Per Element



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



Ordering Information (Note 5)

Device	Packaging	Shipping		
KBJ4005G	KBJ	20/Tube		
KBJ401G	KBJ	20/Tube		
KBJ402G	KBJ	20/Tube		
KBJ404G	KBJ	20/Tube		
KBJ406G	KBJ	20/Tube		
KBJ408G	KBJ	20/Tube		
KBJ410G	KBJ	20/Tube		

 $Notes: \quad 5. \quad \text{For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf}$

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