



DATA SHEET

SEMICONDUCTOR

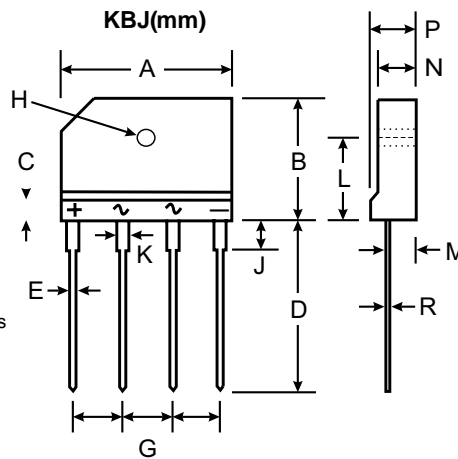
KBJ6005G THRU KBJ610G

6.0A GLASS PASSIVATED BRIDGE RECTIFIER



FEATURES

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 170A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability
- Classification 94V-0
- UL Listed Under Recognized Component Index, File Number E94661
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request



KBJ		
Dim	Min	Max
A	24.80	25.20
B	14.70	15.30
C	400 Nominal	
D	17.20	17.80
E	0.90	1.10
G	7.30	7.70
H	3.10	3.40
J	3.30	3.70
K	1.90	2.10
L	9.30	9.70
M	2.50	2.90
N	3.40	3.80
P	4.40	4.80
R	0.60	0.80
All Dimensions in mm		

MECHANICAL DATA

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Approx. Weight: 4.6 grams
- Marking: Type Number

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

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

Characteristic	Symbol	KBJ	KBJ	KBJ	KBJ	KBJ	KBJ	KBJ	Unit
		6005G	601G	602G	604G	606G	608G	610G	
Peak Repetitive Reverse Voltage	VRRM								V
Working Peak Reverse Voltage	VRWM	50	100	200	400	600	800	1000	
DC Blocking Voltage	VR								
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @ TC = 100 ° C	IO	6.0							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method)	IFSM	170							A
Forward Voltage per element @ IF = 6.0A	VFM	1.0							V
Peak Reverse Current @TC = 25 ° C at Rated DC Blocking Voltage @ TC = 125 ° C	IRM	5.0							μ A
I2t Rating for Fusing (t < 8.3ms) (Note 3)	I2t	120							A2s
Typical Junction Capacitance per Element (Note 1)	CJ	80							PF
Typical Thermal Resistance (Note 2)	R JA	1.5							/W
Operating and Storage Temperature Range	Tj, TSTG	-55 to +150							

Notes: 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.

DEVICE CHARACTERISTICS

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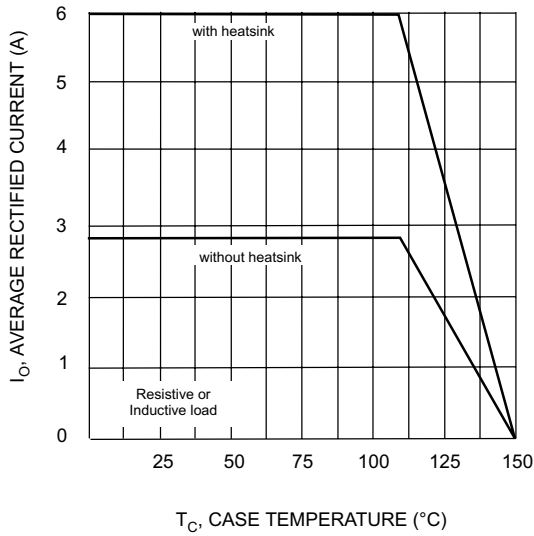


Fig. 1 Forward Current Derating Curve

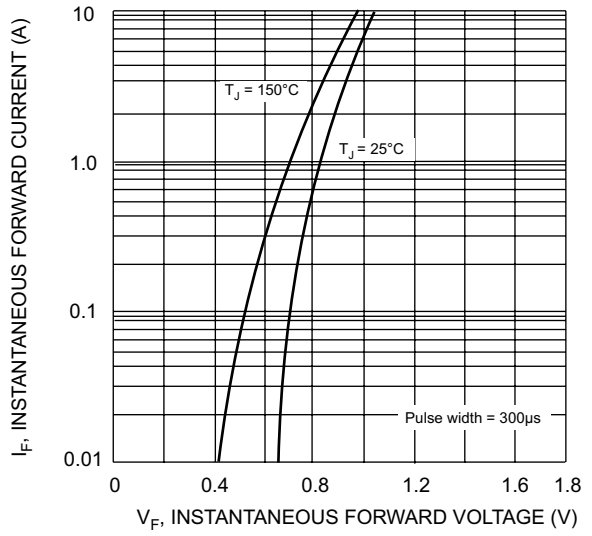


Fig. 2 Typical Forward Characteristics

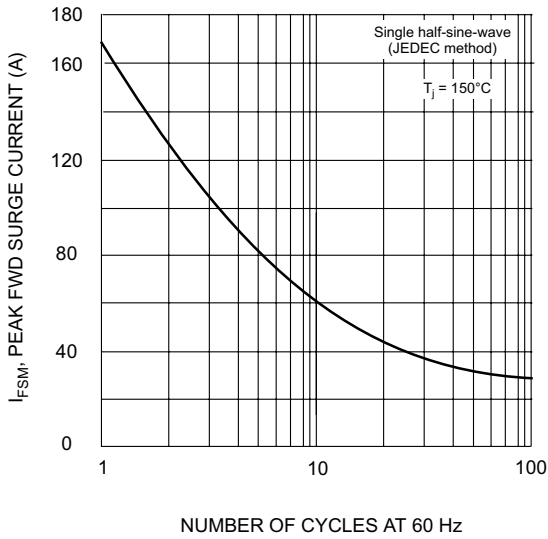


Fig. 3 Max Non-Repetitive Surge Current

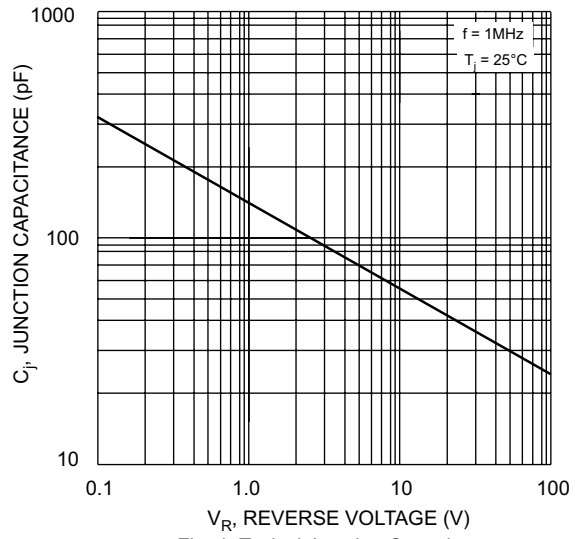


Fig. 4 Typical Junction Capacitance

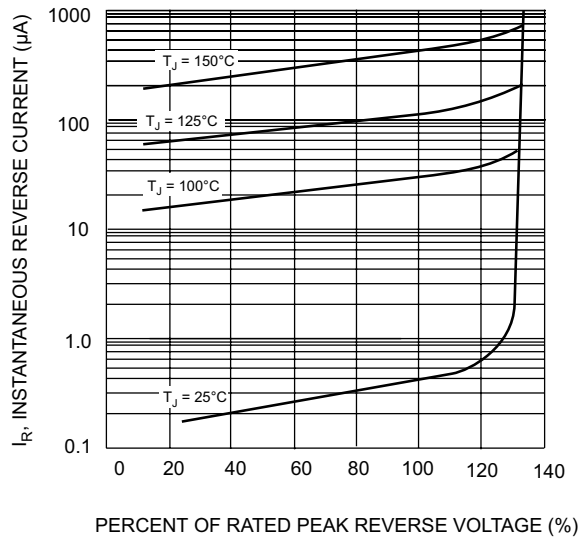


Fig. 5 Typical Reverse Characteristics