



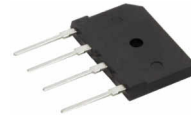
# KBJ6005G THRU KBJ610G

## SINTERED GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts

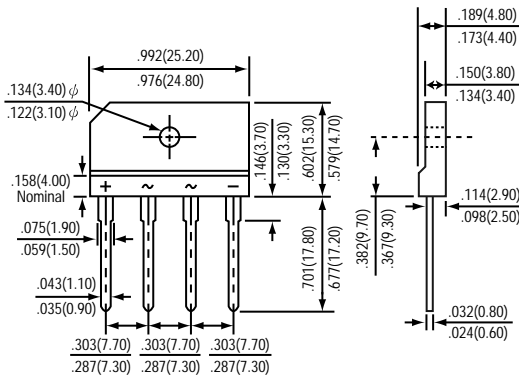
Forward Current - 6.0 Amperes

KBJ



### FEATURES

- \* Glass Passivated Die Construction
- \* High Case Dielectric Strength of 1500V<sub>RMS</sub>
- \* Low Reverse Leakage Current
- \* Surge Overload Rating to 170A Peak
- \* Ideal for Printed Circuit Board Applications
- \* Plastic Material-UL Recognition Flammability Classification 94V-0
- \* This Series is UL Listed Under Recognized Component Index, File Number E95060



\*Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case :** KBJ molded plastic  
**Terminals :** Plated Leads, solderable per MIL-STD-750, Method 2026  
**Polarity :** Molded on body  
**Mounting :** Through Hole for # 6 screw  
**Mounting torque :** 5.0 in-lbs maximum  
**Weight :** 4.6 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	KBJ							UNITS
		6005G	601G	602G	604G	606G	608G	610G	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ Tc=110°C	I (AV)	6.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	170							Amps
Maximum instantaneous forward voltage @ IF=3.0 A	VF	1.0							Volts
Maximum DC reverse current @TC=25°C at rated DC blocking voltage @TC=125°C	IR	5.0 500							uA
I <sup>2</sup> t rating for fusing ( t < 8.3ms ) ( NOTE 3)	I <sup>2</sup> t	120							A <sup>2</sup> s
Typical junction capacitance per element (NOTE 1)	CJ	80							pF
Typical thermal resistance (NOTE 2)	R θJC	6.0							K / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +150							°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 V 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.

# RATINGS AND CHARACTERISTIC CURVES KBJ6005G THRU KBJ610G

FIG.1 - FORWARD CURRENT DERATING CURVE

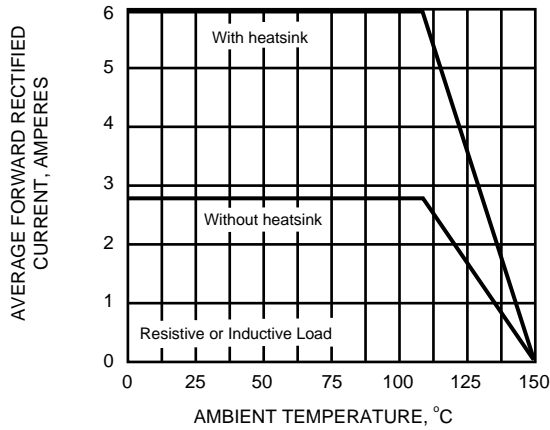


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

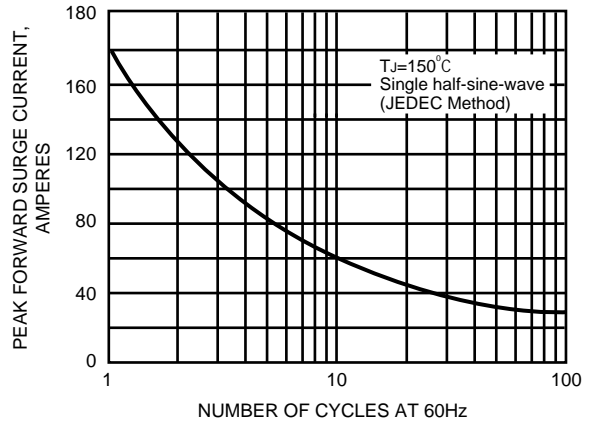


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

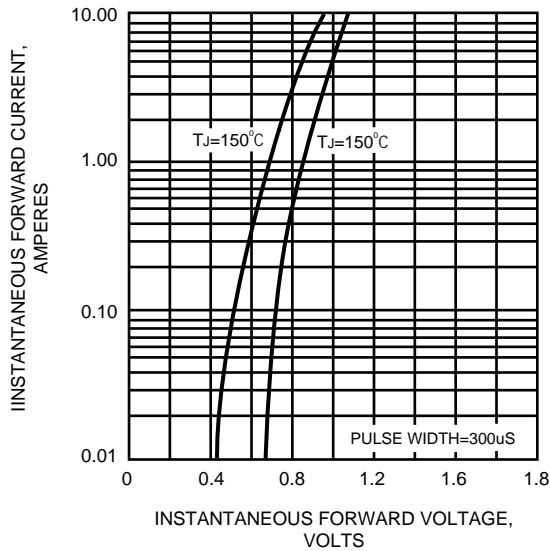


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

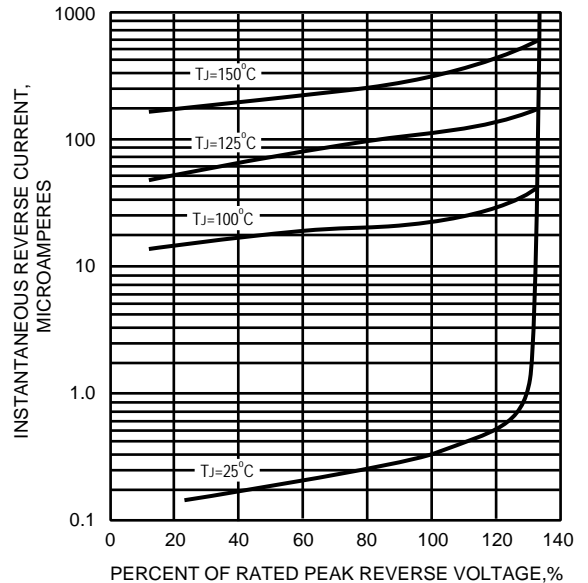


FIG.5 - TYPICAL JUNCTION CAPACITANCE

