

# GBJ/KBJ6A/8A/10A SERIES

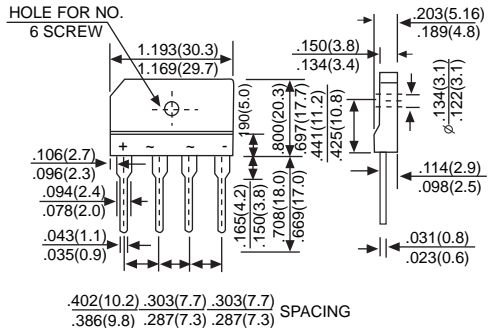
**SINGLE PHASE 6.0/8.0/10.0 AMPS.  
GLASS PASSIVATED BRIDGE  
RECTIFIERS**

**Voltage Range  
50 to 1000 Volts  
Current  
6.0/8.0/10.0 Amperes**

## FEATURES

- \*UL Recognized File #230084
- \*Rating to 1000V PRV
- \*Ideal for printed circuit board
- \*Low forward voltage drop,high current capability
- \*Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- \*The plastic material has UL flammability classification 94V-0

## KBJ6



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
Sing phase, half wave, 50Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number		GBJKBJ	GBJKBJ	GBJKBJ	GBJKBJ	GBJKBJ	GBJKBJ	GBJKBJ	UNITS
		6/8/10 005	6/8/10 01	6/8/10 02	6/8/10 04	6/8/10 06	6/8/10 08	6/8/10 10	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2) Rectified Current@T <sub>c</sub> = 100°C (without heatsink)	I <sub>F(AV)</sub>	6.0/8.0/10.0 2.8/2.9/3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	170							A
Maximum Instantaneous Forward Voltage Drop Per leg @ 3.0A/4.0A/5.0A	V <sub>F</sub>	1.0/1.0/1.05							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5.0 500							µA
I <sup>2</sup> t Rating for fusing (t<8.3ms)	I <sup>2</sup> t	120							A <sup>2</sup> S
Typical Junction Capacitance per Leg (Note 1)	C <sub>J</sub>	55							pF
Typical Thermal Resistance (Note 2)	R <sub>JC</sub>	1.8/1.6/1.4							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

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

2. GBJ/KBJ6005 Thru GBJ/KBJ610: Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

GBJ/KBJ8005 Thru GBJ/KBJ810: Device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.

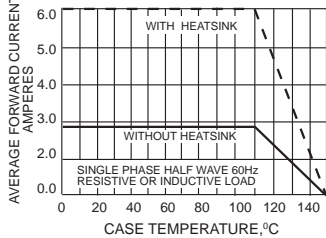
GBJ/KBJ10005 Thru GBJ/KBJ1010: Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.

# RATING AND CHARACTERISTIC CURVES

## GBJ/KBJ6A/8A/10A SERIES

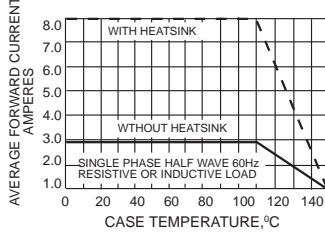
GBJ/KBJ6A thru GBJ/KBJ6M

FIG.1-1 - FORWARD CURRENT DERATING CURVE



GBJ/KBJ8A thru GBJ/KBJ8M

FIG.1-2 - FORWARD CURRENT DERATING CURVE



GBJ/KBJ10A thru GBJ/KBJ10M

FIG.1-3 - FORWARD CURRENT DERATING CURVE

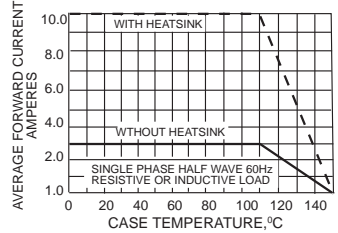


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

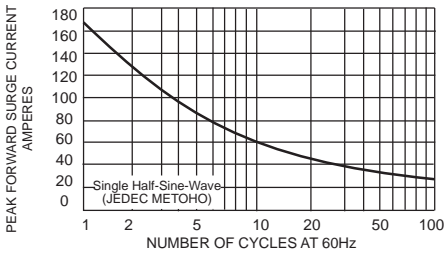


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

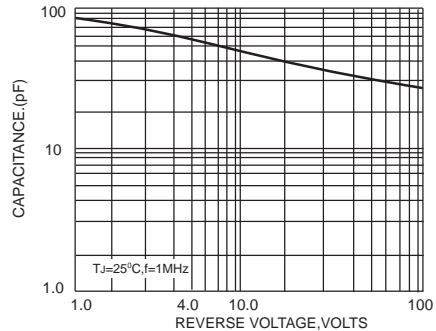


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

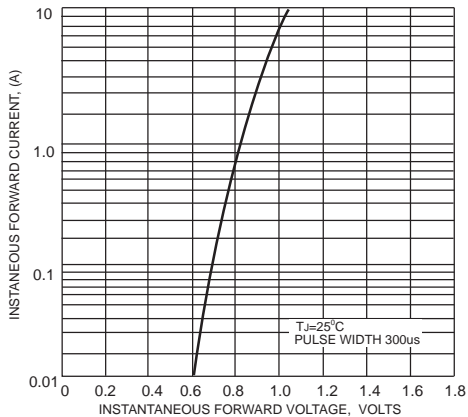


FIG.5-TYPICAL REVERSE CHARACTERISTICS

