



# GBJ/KBJ4005 THRU GBJ/KBJ410

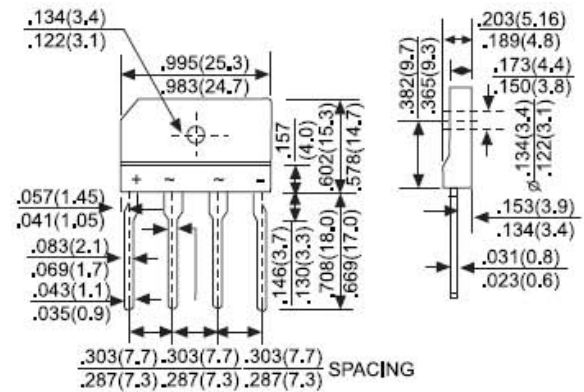
**SINGLE PHASE 4.0AMPS.  
GLASS PASSIVATED BRIDGE  
RECTIFIERS**

**Voltage Range  
50 to 1000 Volts  
Current  
4.0 Amperes**

**FEATURES**

- UL Recognized File # 230084
- Surge overload rating - 50 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Mounting Position: Any

**GBJ4**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

Type Number		GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	GBJ	UNITS	
		KBJ	KBJ	KBJ	KBJ	KBJ	KBJ	KBJ		
		4005	401	402	404	406	408	410		
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>	4.0				2.4				A
Peak Forward Surge Current 8.3ms single half sine wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	120								A
Maximum Instantaneous Forward Voltage Drop Per leg @4.0A	V <sub>F</sub>	1.1								V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>R</sub>	5.0				500				uA
I <sup>2</sup> t Rating for fusing (t<8.3ms)	I <sup>2</sup> t	93								A <sup>2</sup> S
Typical Junction Capacitance per Leg (Note 1)	C <sub>J</sub>	45								pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	2.2								°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. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

# RATING AND CHARACTERISTIC CURVES GBJ/KBJ4005 thru GBJ/KBJ410



FIG.1 - FORWARD CURRENT DERATING CURVE

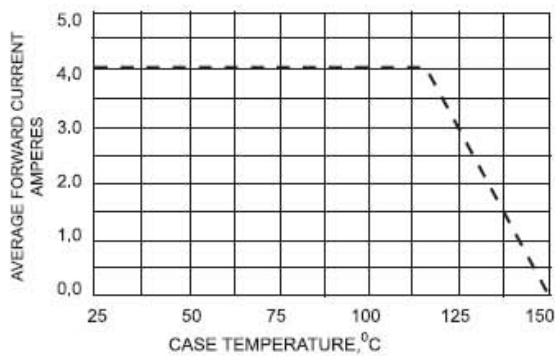


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

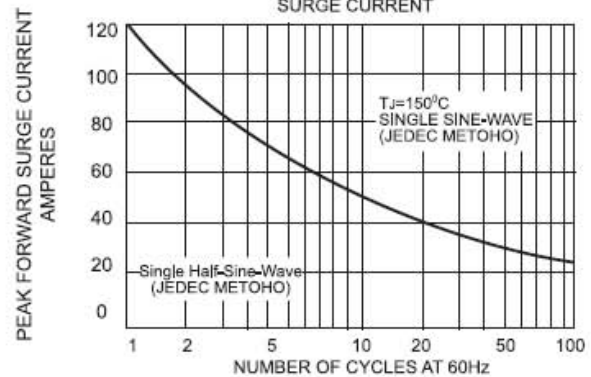


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

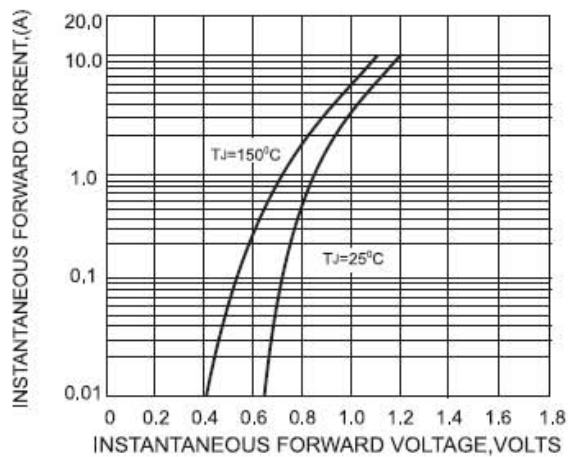


FIG.5-TYPICAL REVERSE CHARACTERISTICS

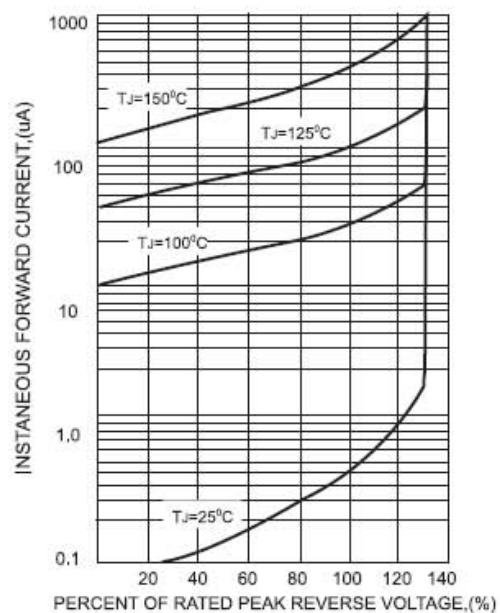


FIG.4-TYPICAL JUNCTION CAPACITANCE

