

Kingtronics®

GBJ20005 THRU GBJ2010

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 20 Ampere

FEATURES

- 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
- Electrically isolated base-1500 Volts

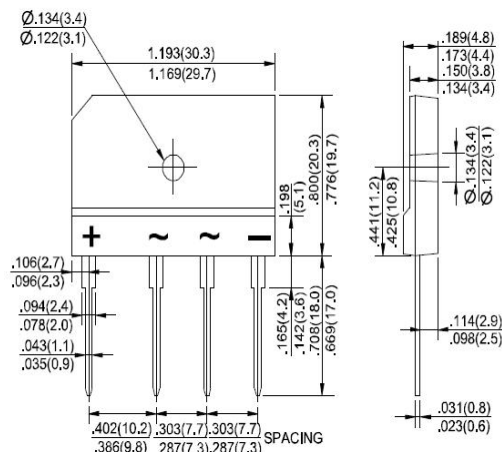
MECHANICAL DATA

- Polarity: Symbols molded on body
- Weight: 0.26 ounces, 7.0 grams
- Mounting position : Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified ,
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%

Dimensions in inches and (millimeters)



PARAMETER	SYMBOL	GBJ20005	GBJ2001	GBJ2002	GBJ2004	GBJ2006	GBJ2008	GBJ2010	UNIT	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_C=110^\circ\text{C}$ (without)	$I_{(AV)}$					20.0 3.5				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}					260				A
Maximum forward Voltage at 10A DC	V_F					1.05				V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking voltage @ $T_J=125^\circ\text{C}$	I_R					5.0 500				μA
I^2t Rating for fusing ($t<8.3\text{ms}$)	I^2t					240				A^2S
Typical Junction Capacitance per element (Note 1)	C_J					60				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$					0.8				$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J					-55 to +150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}					-55 to +150				$^\circ\text{C}$

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

2- Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

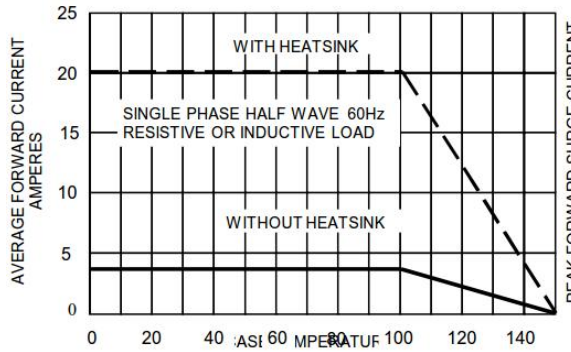


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

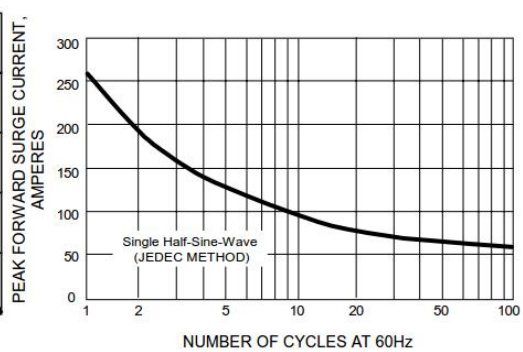


FIG.3 - TYPICAL JUNCTION CAPACITANCE

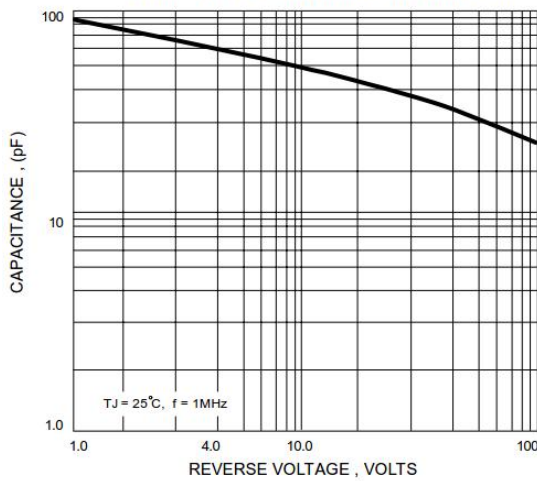


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

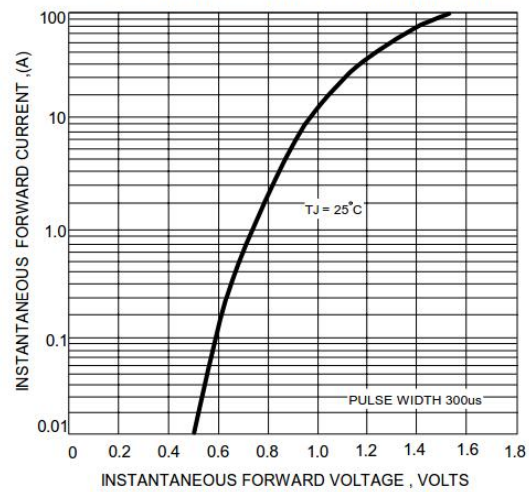
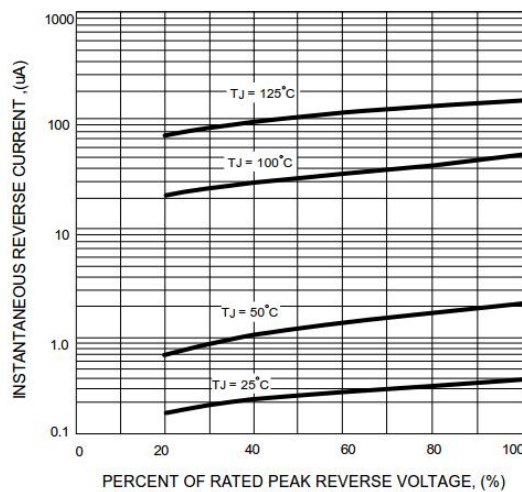


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.