

GBJ20005 THRU GBJ2010

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 20 Ampere

FEATURES

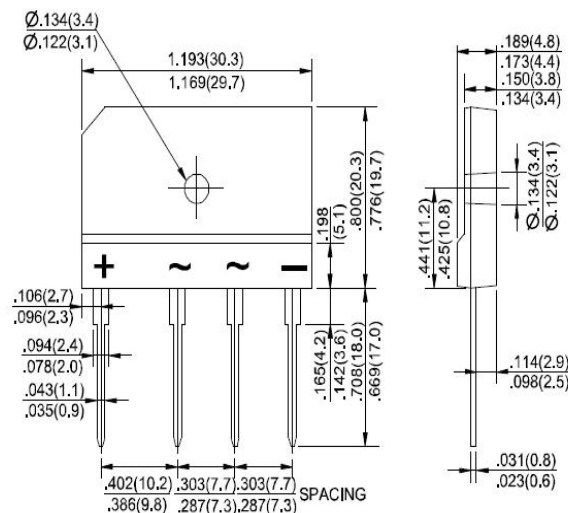
- ◆ Rating to 1000V PRV.
- ◆ Ideal for printed circuit board.
- ◆ Low forward voltage drop, high current capability.
- ◆ Reliable low cost construction utilizing molded plastic technique results in inexpensive product.
- ◆ The plastic material has UL flammability classification 94V-0.

- ◆ Electrically isolated base-1500 Volts

Mechanical Data

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

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Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

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 heatsink)	$I_{(AV)}$	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							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 1. Measured at 1.0M Hz and applied reversed voltage of 4.0 VDC.

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

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RATING AND CHARACTERISTIC CURVES GBJ20005 THRU GBJ2010

FIG.1-FORWARD CURRENT DERATING CURVE

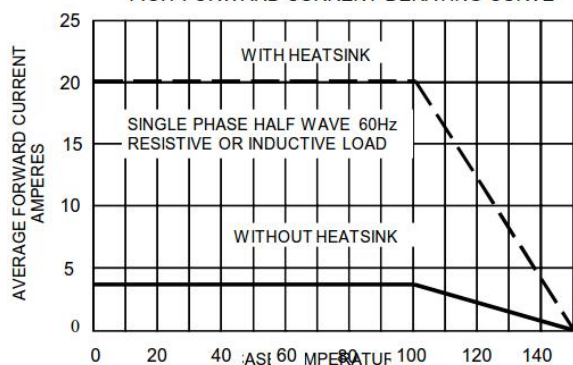


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

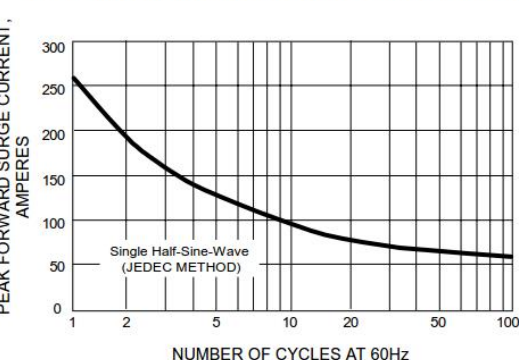


FIG.3 - TYPICAL JUNCTION CAPACITANCE

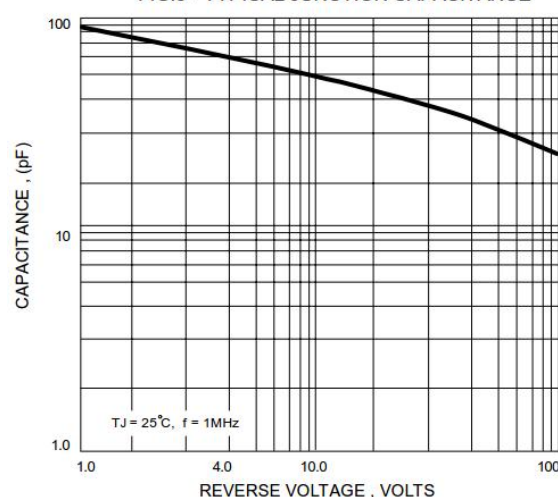


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

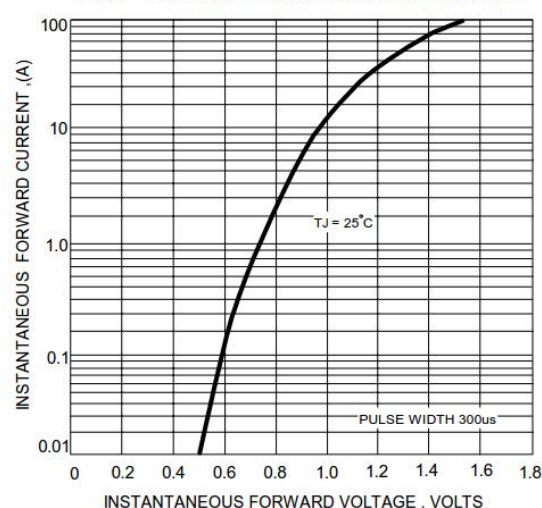
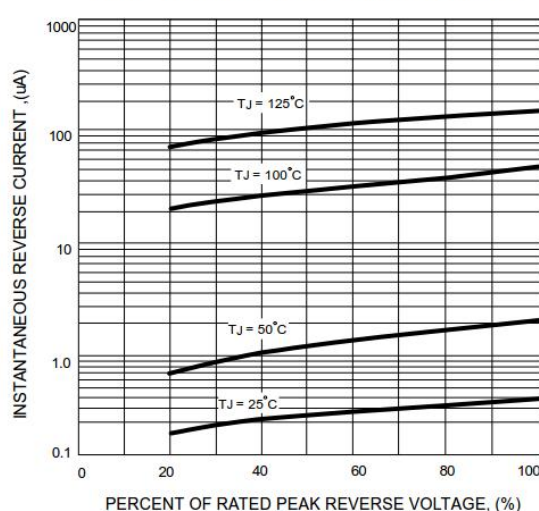


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.