

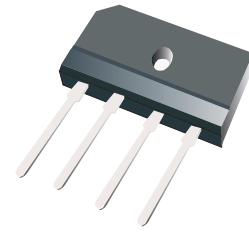
# Glass Passivated Bridge Rectifiers

## GBJ10005-G Thru. GBJ1010-G


Reverse Voltage: 50 to 1000V

Forward Current: 10 A

RoHS Device

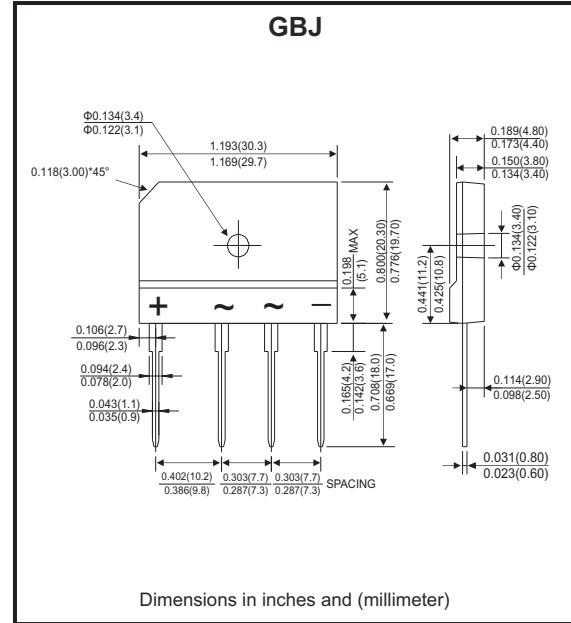


### Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- UL recognized file # E349301 

### Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBJ
- Mounting position: Any.
- Weight: 6.81grams.



### 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	GBJ 10005-G	GBJ 1001-G	GBJ 1002-G	GBJ 1004-G	GBJ 1006-G	GBJ 1008-G	GBJ 1010-G	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 Note2) rectified current @Tc=110°C (without heatsink)	$I_{(AV)}$					10			A
Peak forward surge current, 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	$I_{FSM}$					220			A
Maximum forward voltage at 5.0A DC	$V_F$					1.0			V
Maximum DC reverse current @Tj=25°C at rated DC blocking voltage @Tj=125°C	$I_R$					10			$\mu A$
$I^2t$ rating for fusing (t<8.3ms)	$I^2t$					200.86			A <sup>2</sup> s
Typical junction capacitance per element (Note 1)	$C_J$					55			pF
Typical thermal resistance	$R_{\theta JC}$					1.4			°C/W
Operating temperature range	$T_J$					-55 to +150			°C
Storage temperature range	$T_{STG}$					-55 to +150			°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 150mm\*150mm\*1.6mm Cu plate heatsink.

Company reserves the right to improve product design, functions and reliability without notice.

REV: A

## Rating and Characteristics Curves (GBJ10005-G Thru. GBJ1010-G)

Fig.1 - Forward Current Derating Curve

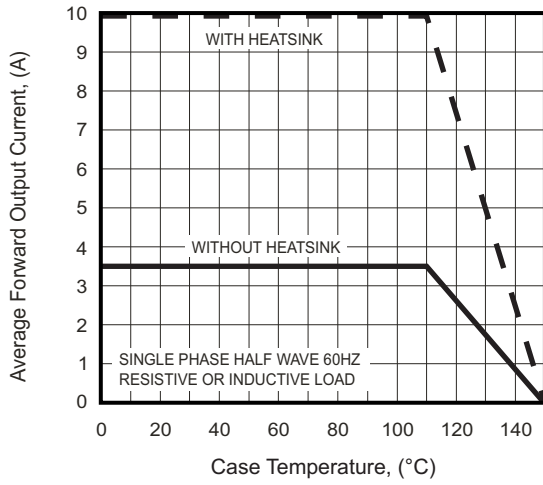


Fig.2 - Maximum Non-Repetitive Surge Current

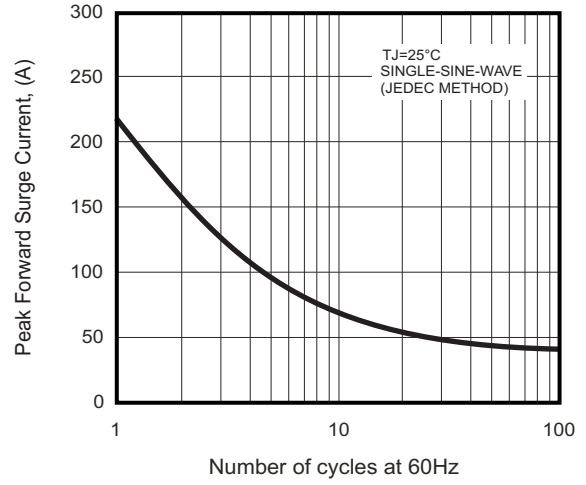


Fig.3 - Typical Junction Capacitance

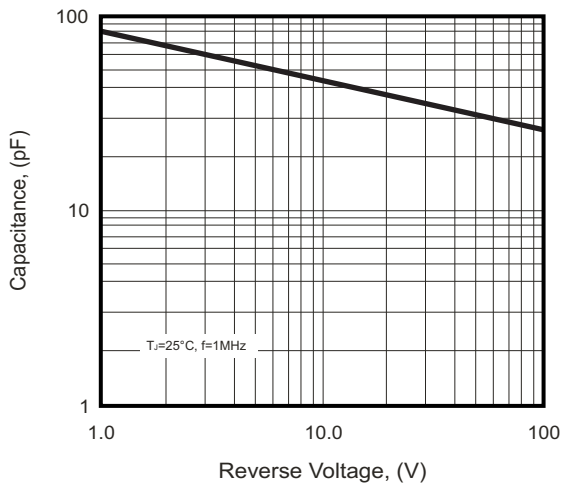


Fig.4 - Typical Forward Characteristics

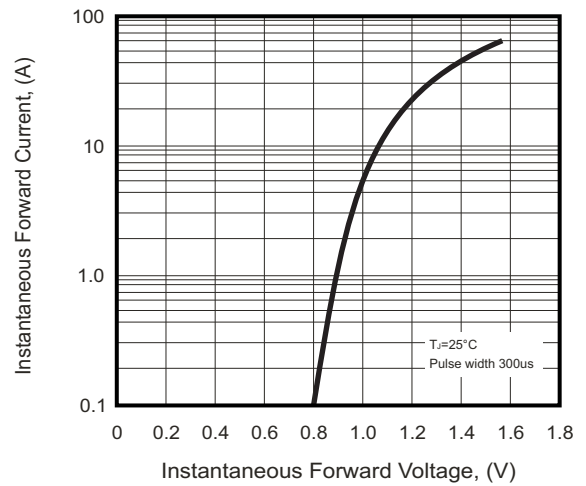
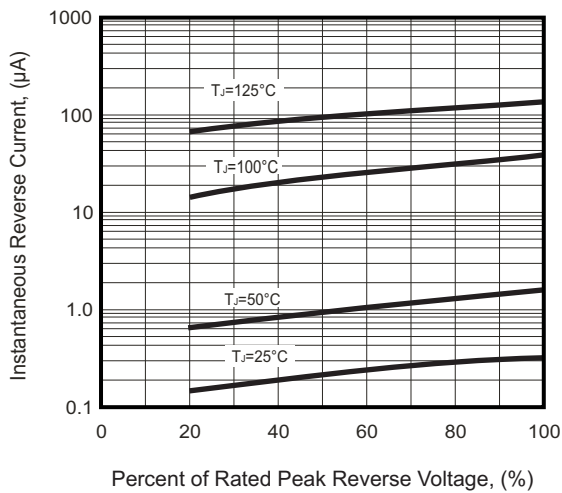


Fig.5 - Typical Reverse Characteristics



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REV: A