

## Single-Phase Glass Passivated Bridge Rectifier

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0
- Glass passivated die construction
- High case dielectric strength of 1500 V<sub>RMS</sub>
- Low reverse leakage current
- Ideal for printed circuit boards
- Surge overload rating to 170A Peak
- This series is UL recognized under component index, File number E194718
- RoHS Compliant



GBJ



### Mechanical Data

<b>Case:</b>	Molded Plastic
<b>Terminals:</b>	Plated leads solderable per MIL-STD-202, method 208
<b>Polarity:</b>	Molded on Body
<b>Mounting:</b>	Through Hole for #6 Screw
<b>Mounting Torque:</b>	5.0 In-1bs Max.
<b>Weight:</b>	6.6 grams

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	GBJ10005	GBJ1001	GBJ1002	GBJ1004	GBJ1006	GBJ1008	GBJ1010	Unit	
<b>V<sub>RRM</sub></b>	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Max. RMS Voltage	35	70	140	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Max. DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>(AV)</sub></b>	Max. Average Forward Rectified Output Current	TC=100°C							10	A
		TA=25°C							5.0	
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	170								A
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating and Storage Temperature Range	-55 to +150								°C

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## GBJ10005 - GBJ1010

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	GBJ10 005	GBJ10 01	GBJ10 02	GBJ10 04	GBJ10 06	GBJ10 08	GBJ10 10	Unit
$V_F$	Max. Instantaneous Forward Voltage Drop per leg at 5A DC	1.05							V
$I_R$	Max. DC Reverse Current at Rated DC Blocking Voltage per leg	$T_A=25^{\circ}C$							$\mu A$
		$T_A=125^{\circ}C$							
$R_{\theta-JA}$	Typical Thermal Resistance Junction to case (Note3)	22							$^{\circ}C/W$

#### Notes:

1. Non-repetitive. For  $1 > 1ms$  and  $< 8.3ms$ .
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance from junction to case per leg. Unit mounted 100 x 100 x 1.6mm aluminum plate heat sink.
4. Single phase, 60Hz, resistive or inductive load.
5. For capacitive load, derate current by 20%.

### Typical Characteristics Curves

Fig.1- Derating Curve Output Rectified Current

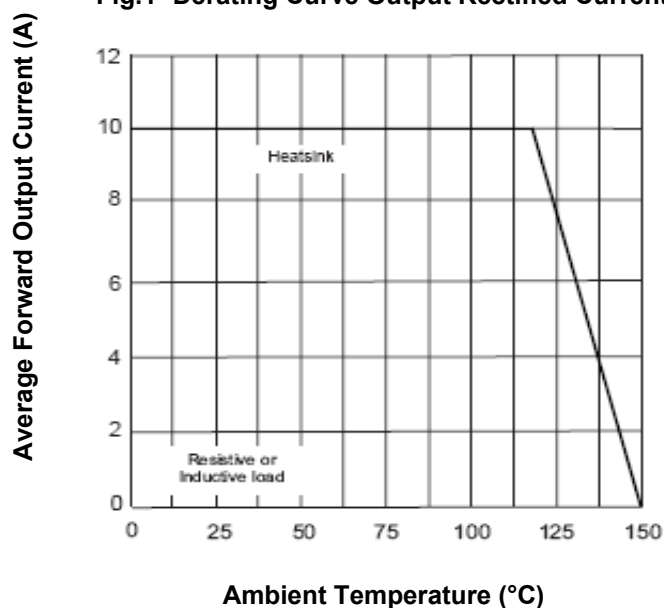
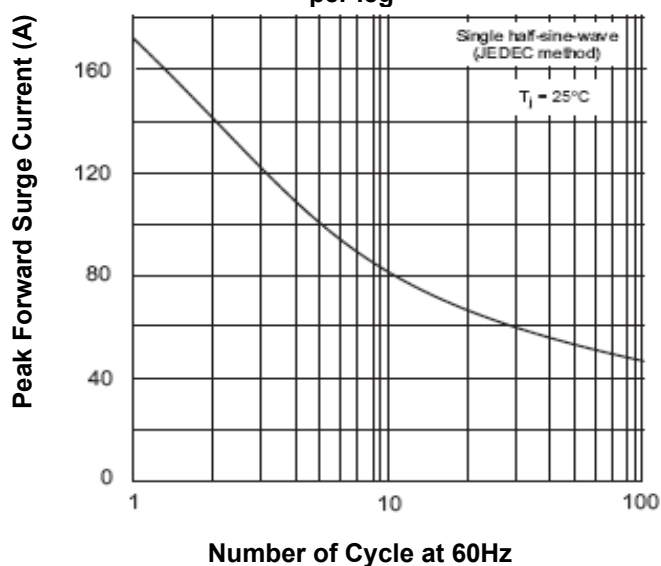


Fig.2- Max. Non-Repetitive Peak Forward Surge Current per leg



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## GBJ10005 - GBJ1010

Fig.3- Typical Forward Characteristics per leg

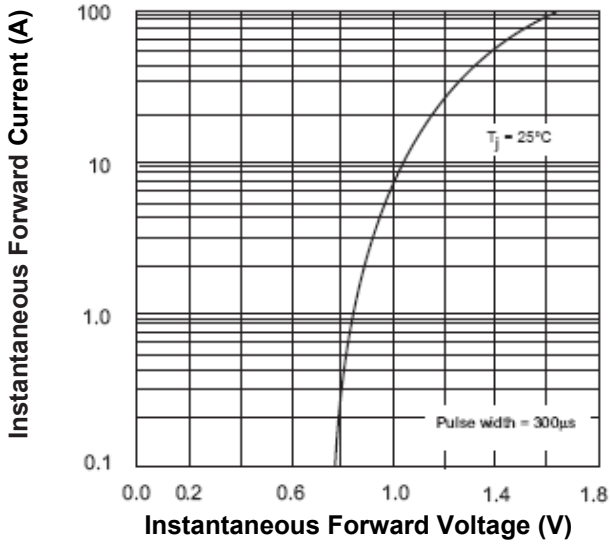
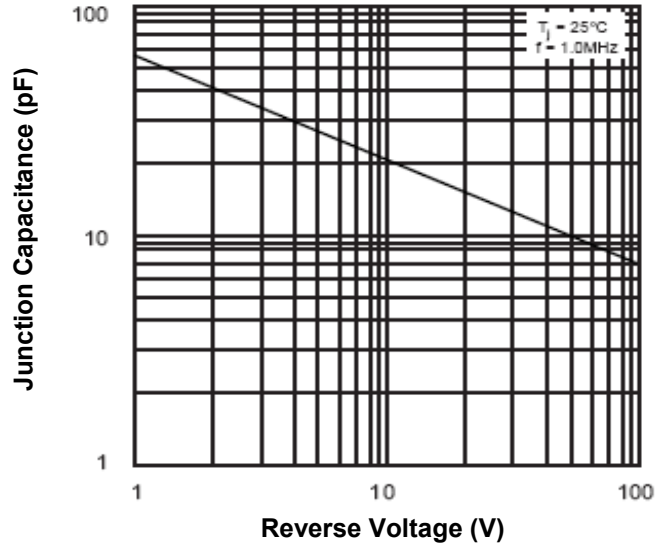
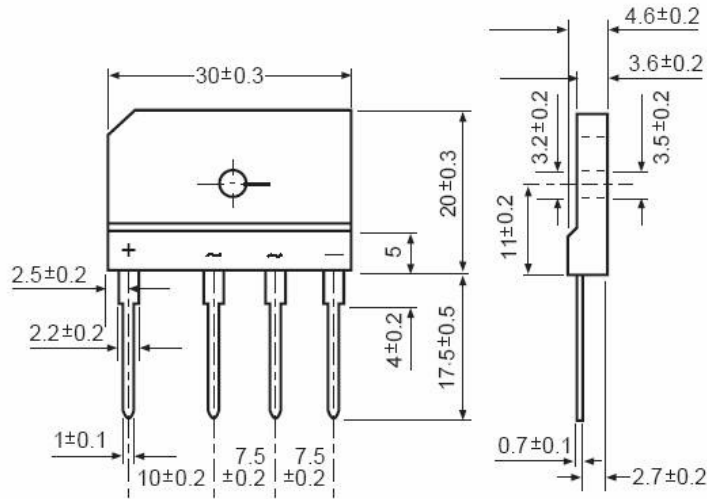


Fig.5- Typical Junction Capacitance per leg



### Dimensions in mm



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GBJ10005 - GBJ1010

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