

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 VRMS
- 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

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

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

Symbol	Description	GBJ10005	GBJ1001	GBJ1002	GBJ1004	GBJ1006	GBJ1008	GBJ1010	Unit
VRRM	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V
VRMS	Max. RMS Voltage	35	70	140	280	420	560	700	V
VDC	Max. DC Blocking Voltage	50	100	200	400	600	800	1000	V
I(AV)	Max. Average Forward Rectified Output Current	TC=100°C							A
		TA=25°C							
IFSM	Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	170							A
TJ, TSTG	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°C	10							µA
		T _A =125°C	250							
R _{θ-JA}	Typical Thermal Resistance Junction to case (Note3)		22							° 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

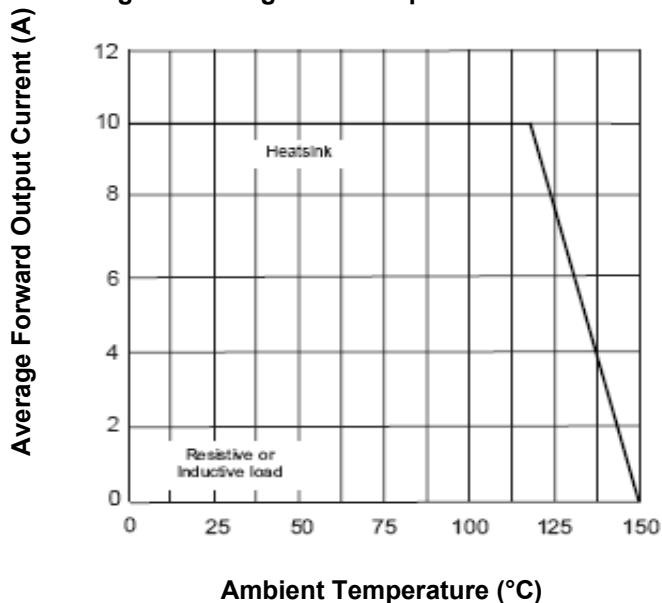
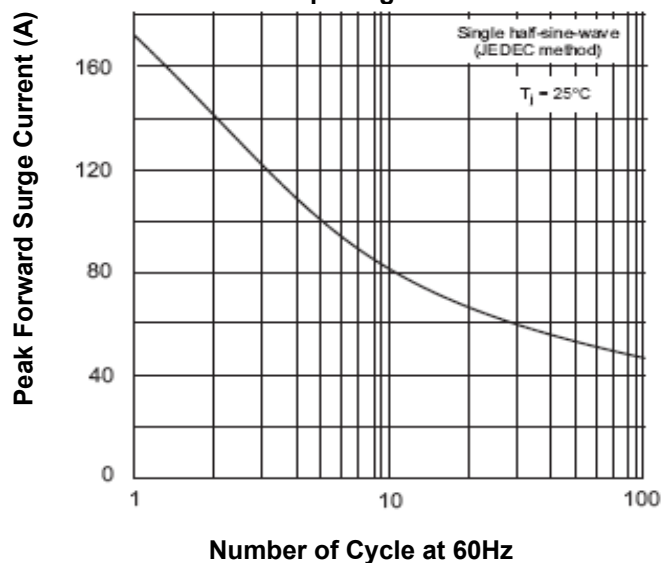


Fig.2- Max. Non-Repetitive Peak Forward Surge Current per leg



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Fig.3- Typical Forward Characteristics per leg

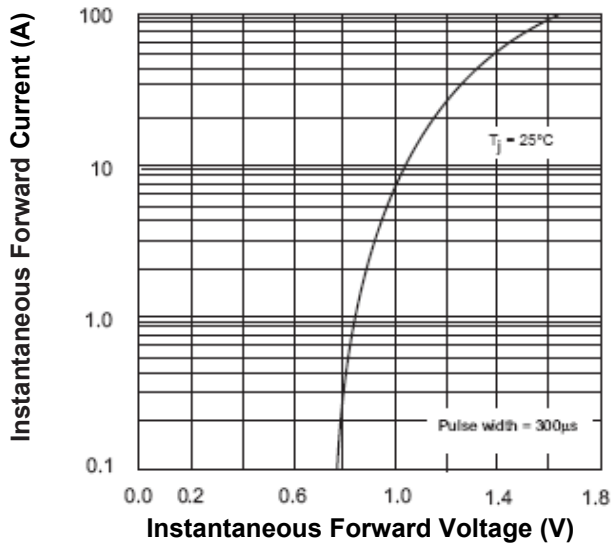
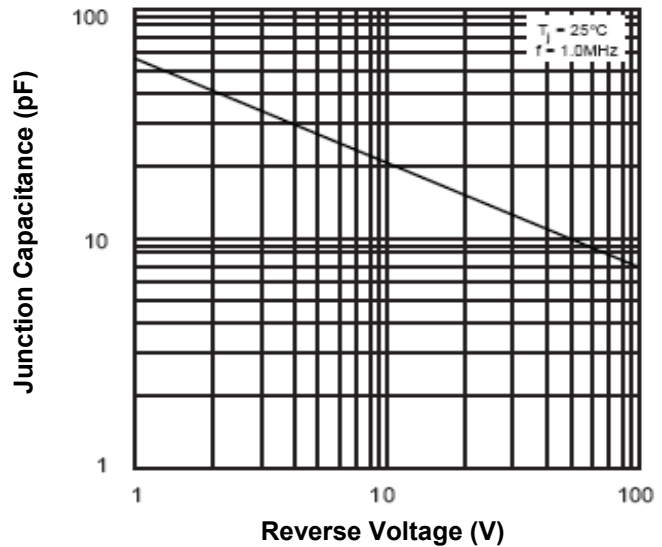
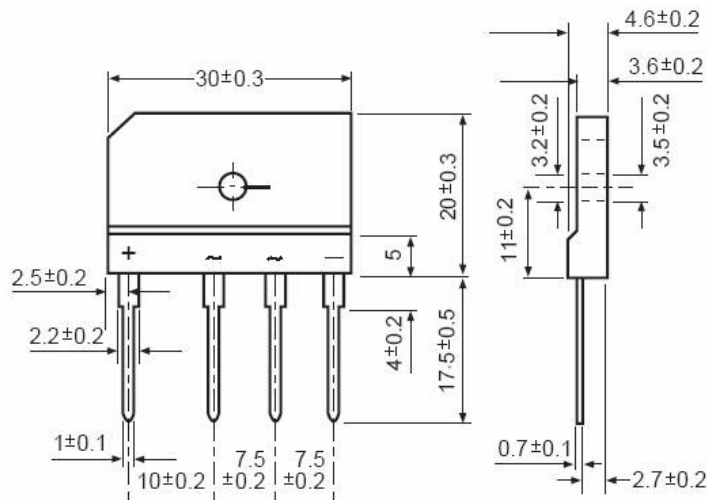


Fig.5- Typical Junction Capacitance per leg



Dimensions in mm



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