

Single-Phase Glass Passivated Bridge Rectifier

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0
- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Ideal for printed circuit boards
- RoHS Compliant



GBJ



Mechanical Data

Case:	Molded Plastic
Terminals:	Plated leads solderable per MIL-STD-202, method 208
Polarity:	Molded on Body
Mounting Torque:	8.8 In-lbs Max.
Weight:	7.0 grams

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

Symbol	Description	GBJ35005	GBJ3501	GBJ3502	GBJ3504	GBJ3506	GBJ3508	GBJ3510	Unit
V_{RRM}	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V
V_{RMS}	Max. RMS Voltage	35	70	140	280	420	560	700	V
V_{DC}	Max. DC Blocking Voltage	50	100	200	400	600	800	1000	V
I_(AV)	Max. Average Forward Rectified Output Current at $T_c=100^{\circ}C$	35							A
I_{FSM}	Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	350							A
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to +150							$^{\circ}C$

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GBJ35005 - GBJ3510

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

Symbol	Description	GBJ35 005	GBJ35 01	GBJ35 02	GBJ35 04	GBJ35 06	GBJ35 08	GBJ35 10	Unit	
V_F	Max. Instantaneous Forward Voltage Drop per leg at 17.5A DC	1.1							V	
I_R	Max. DC Reverse Current at Rated DC Blocking Voltage per leg	$T_A=25^{\circ}C$							10	μA
		$T_A=125^{\circ}C$							350	
$R_{\theta-JA}$	Typical Thermal Resistance per leg (Note2)	22								
$R_{\theta-JC}$	Typical Thermal Resistance per leg (Note1)	1.0							$^{\circ}C/W$	

Notes:

1. Device mounted on 220 x 220 x 1.6mm thick Al plate heat sink.
2. Device mounted on P.C.B. without heat sink.
3. Single phase, 60Hz, resistive or inductive load.
4. For capacitive load, derate current by 20%.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

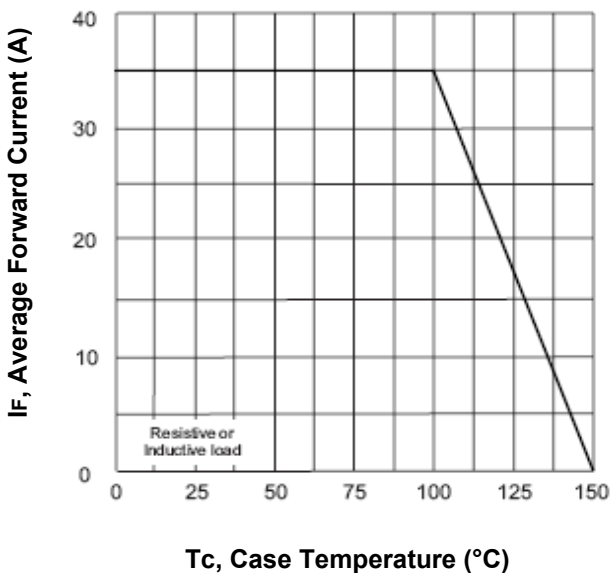
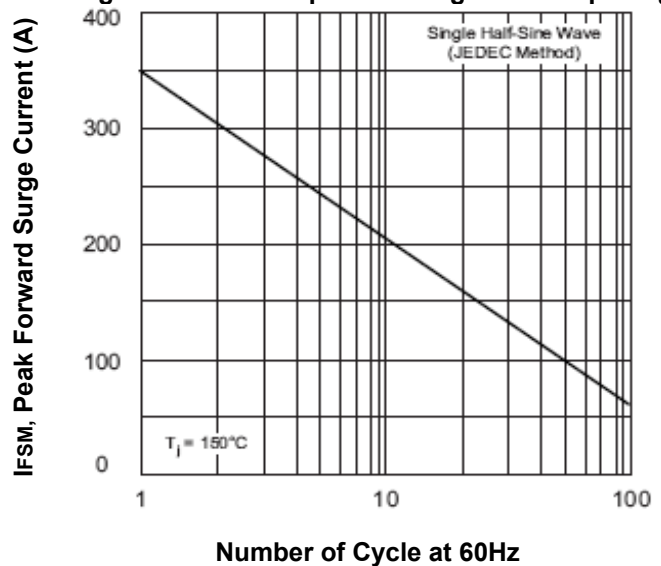


Fig.2- Max. Non-Repetitive Surge Current per leg



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Fig.3- Typical Forward Characteristics per leg

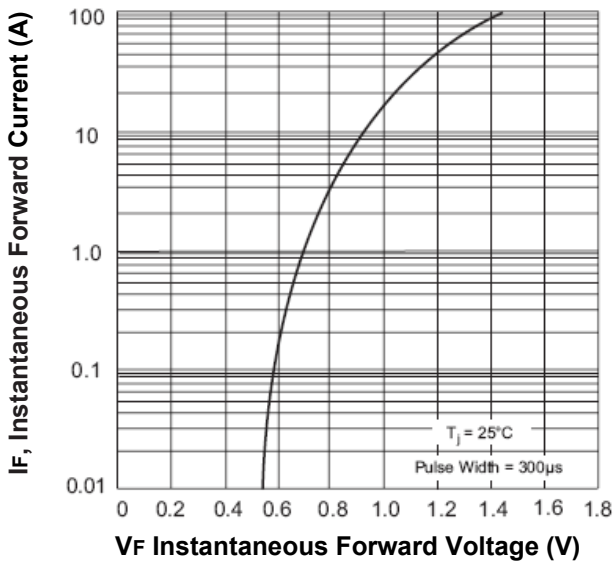


Fig.4- Typical Reverse Characteristics per leg

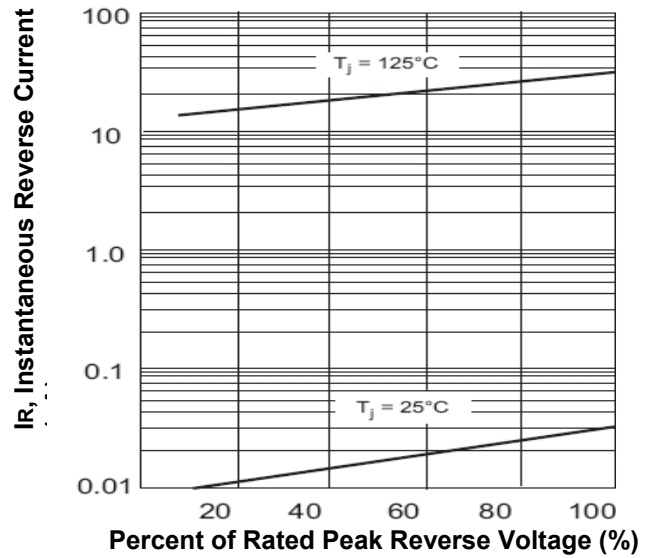
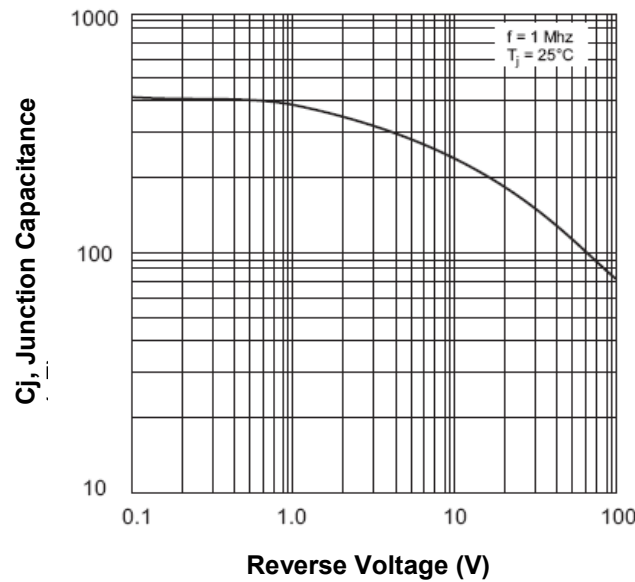


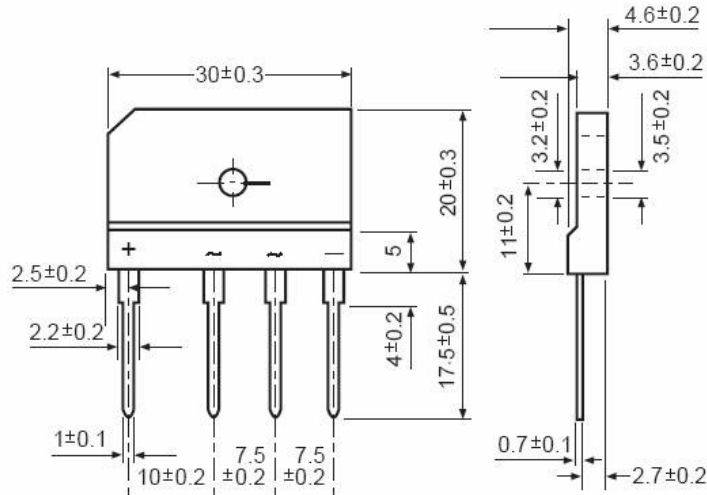
Fig.5- Typical Junction Capacitance per leg



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Dimensions in mm



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