



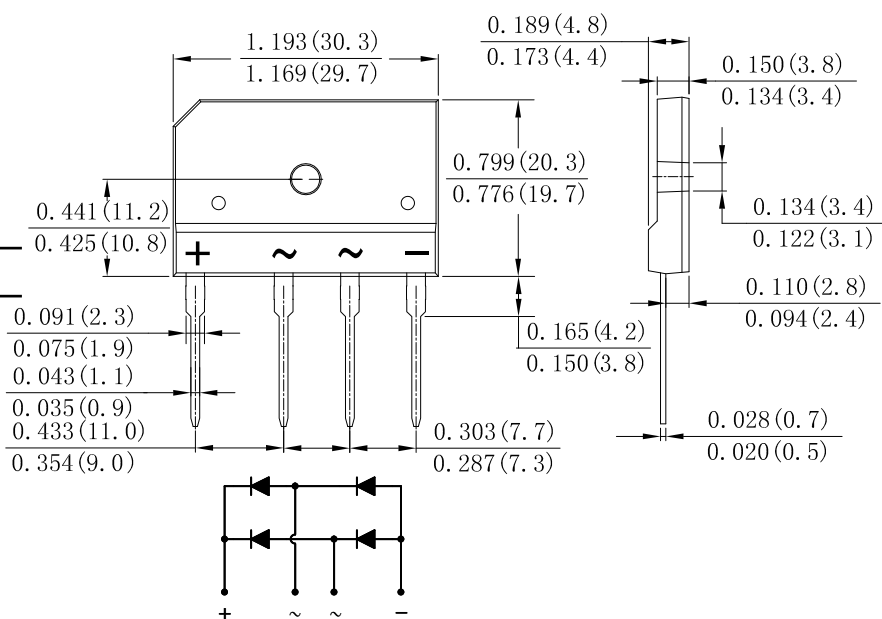
GBJ50005 THRU GBJ5010

Single Phase 50.0 AMP Glass Passivated Bridge Rectifier

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Case: GBJ



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%.

TYPE NUMBER	SYMBOL	GBJ 50005	GBJ 5001	GBJ 5002	GBJ 5004	GBJ 5006	GBJ 5008	GBJ 5010	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
	V _{RWM}								
	V _{DC}								
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T _C =90℃	IF(AV)	50.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	500							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	1037.5							A ² s
Forward Voltage per element @IF=25A	V _{FM}	1.1							V
Peak Reverse Current @T _J =25℃ At Rated DC Blocking Voltage @T _J =125℃	I _R	5.0 200							uA
Dielectric Strength	V _{ids}	2500							V
The proposed installation torque Max torque	T _{or}	Typ. 5.0 Max 8.0							Kgf.cm
Typical Junction Capacitance (Note 2)	C _J	180							pF
Between junction and ambient, Without heatsink	R _{θJA}	22							℃/W
Between junction and case, With heatsink	R _{θJC}	0.8							
Operating and Storage Temperature Range	T _J , T _{STG}	-55to+150							℃

Note: 1. Unit case mounted on aluminum plate heatsink

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



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Fig. 1 Forward Current Derating Curve

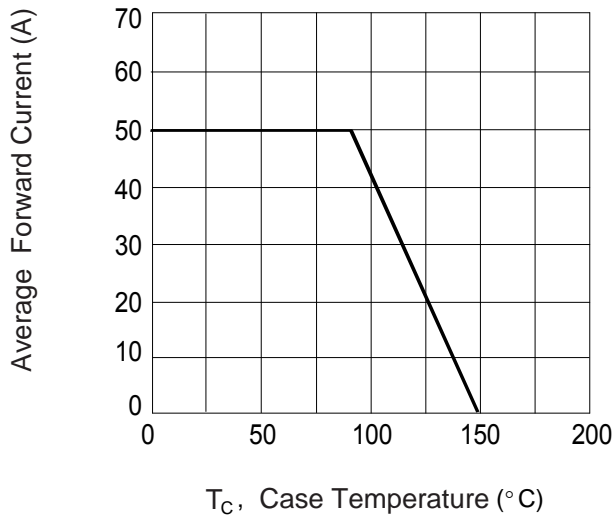


Fig. 2 Typ. Forward Characteristics

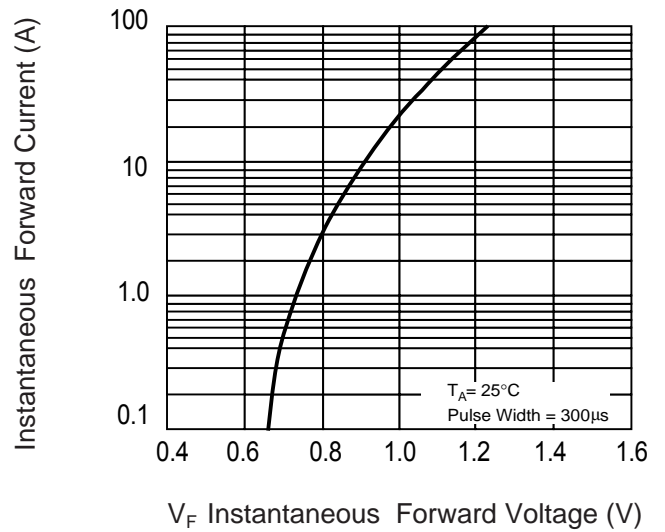


Fig.3 Maximum Peak Forward Surge Current

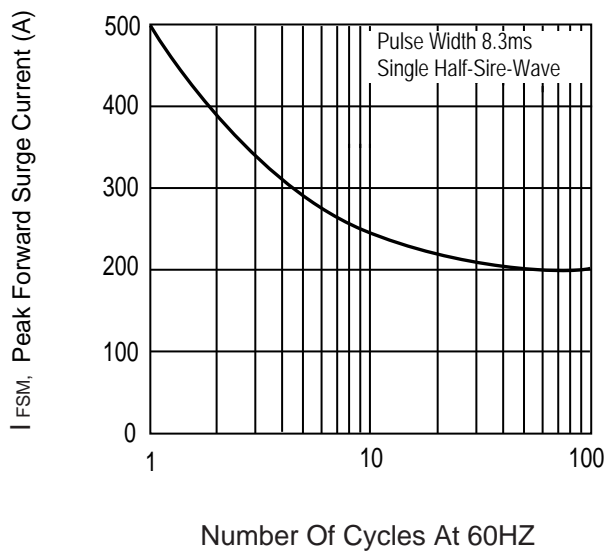


Fig.4 Typical Junction Capacitance

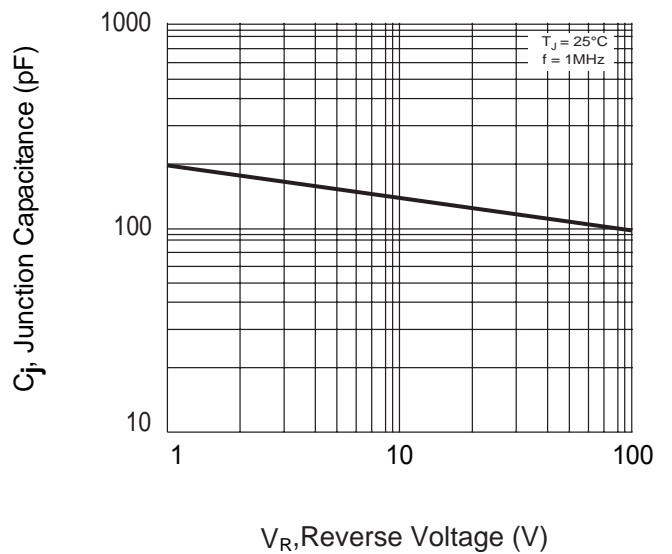
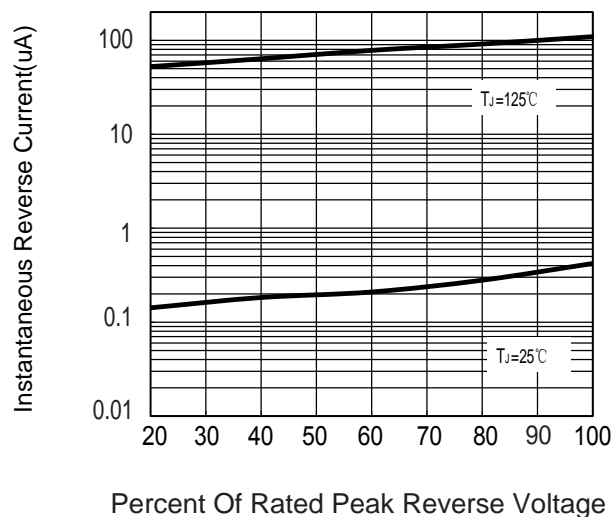


Fig.5 Typical Reverse Characteristics





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