

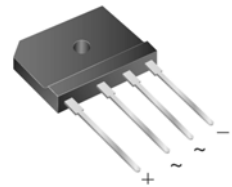
GSGBJ1501 thru GSGBJ1510

Bridge Rectifiers

Reverse Voltage 100V to 1000V Forward Current 15.0A

Features

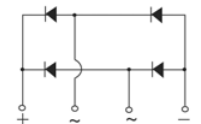
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



Package: GBJ

Mechanical Data

- Case: GBJ molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting position: Any



Schematic Diagram

Applications

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment and telecommunication applications.

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%.)

Parameters	Symbols	GSGBJ 1501	GSGBJ 1502	GSGBJ 1504	GSGBJ 1506	GSGBJ 1508	GSGBJ 1510	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	15						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	220						A
Rating for Fusing (t=8.3ms)	I^2t	200						A ² s
Maximum Instantaneous Forward Voltage at 7.5A DC	V_F	1.0						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^{\circ}C$						μA
		$T_J=125^{\circ}C$						μA
Typical Thermal Resistance, Junction-Ambient ¹	$R_{\theta JA}$	18						°C/W
Typical Thermal Resistance, Junction-Case ¹	$R_{\theta JC}$	1.5						
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150						C

Notes:

1. Device mounted on 75mm x 45mm x 5.5mm aluminum plate heatsink.

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

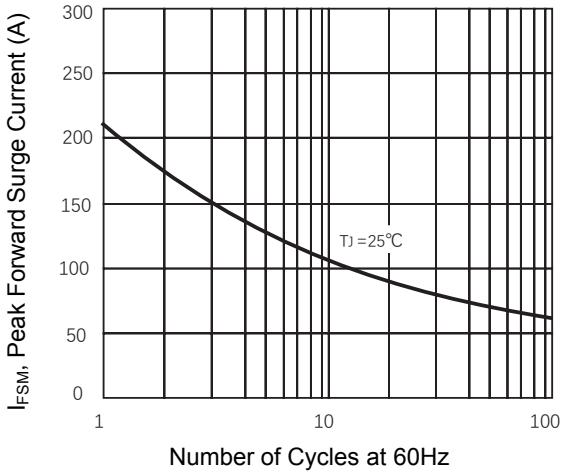


Figure 1. Maximum Forward Surge Current

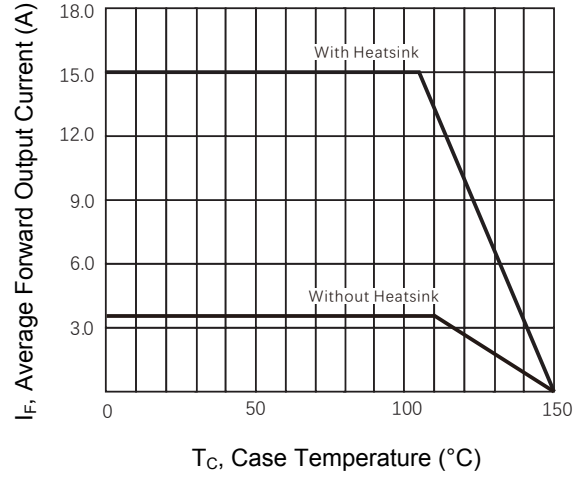


Figure 2. Forward Current Derating Curve

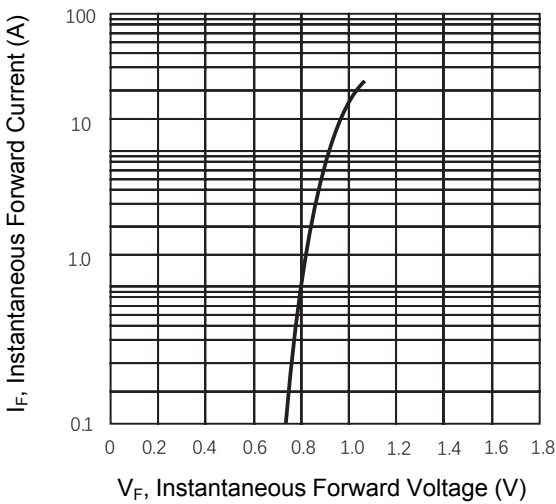


Figure 3. Typical Forward Characteristics

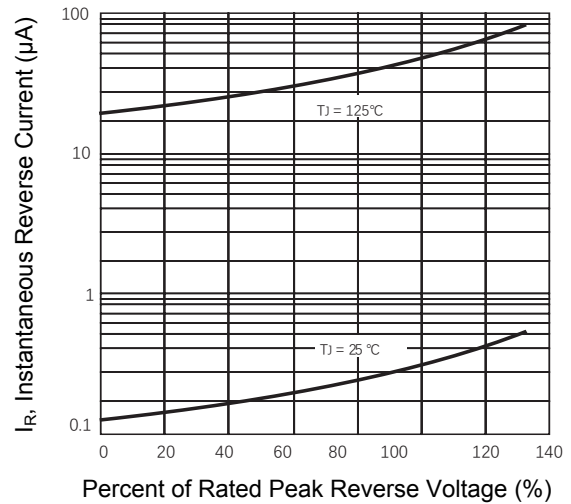


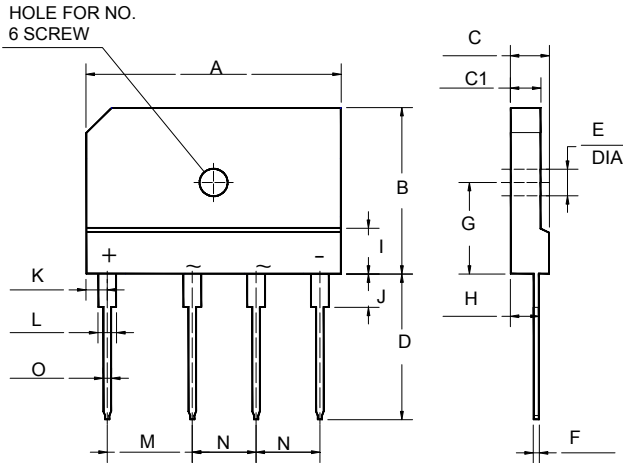
Figure 4. Typical Reverse Characteristics

GSGBJ1501 thru GSGBJ1510

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Package Outline Dimensions (GBJ)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	29.70	30.30	1.169	1.193
B	19.70	20.30	0.776	0.800
C	4.40	4.80	0.173	0.189
C1	3.40	3.80	0.134	0.150
D	17.00	18.00	0.669	0.708
E	3.10	3.40	0.122	0.134
F	0.60	0.80	0.023	0.031
G	10.80	11.20	0.425	0.441
H	3.40	3.90	0.134	0.153
I	4.80	5.80	0.189	0.228
J	3.80	4.20	0.150	0.165
K	2.30	2.70	0.096	0.106
L	2.00	2.40	0.078	0.094
M	9.80	10.20	0.386	0.402
N	7.30	7.70	0.287	0.303
O	0.90	1.10	0.035	0.043