GBJ3001 THRU GBJ3010

BRIDGE RECTIFIER

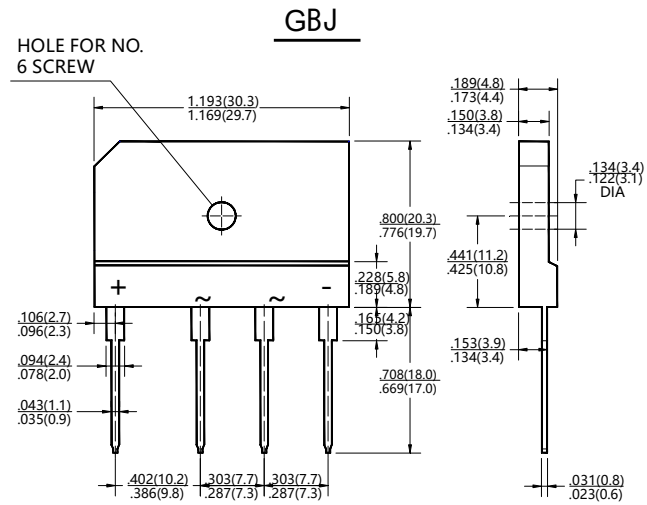
Reverse Voltage: 100 to 1000 Volts
Forward Current: 30. 0 Amps

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

Mechanical Data

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



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%.)

Parameters	Symbol	GBJ3001	GBJ3002	GBJ3004	GBJ3006	GBJ3008	GBJ3010	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	30.0						A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method,Total device)	I_{FSM}	350						A
Rating for fusing(t<8.3ms)	I^2t	510						A^2S
Operating junction temperature range	T_J	-55 to 150						℃
Storge temperature range	Tstg	-55 to 150						℃

Electrical Characteristcs (Per diode,T_A=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	GBJ3001	GBJ3002	GBJ3004	GBJ3006	GBJ3008	GBJ3010	Unit
Max Instaneous forward voltage	I_F=15.0A		V_F 1)	1.05						V
Max Reverse current	V_R=V_{RRM}	T_A=25℃	I_R 2)	5						μA
		T_A=100℃		100						
		T_A=125℃		500						

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

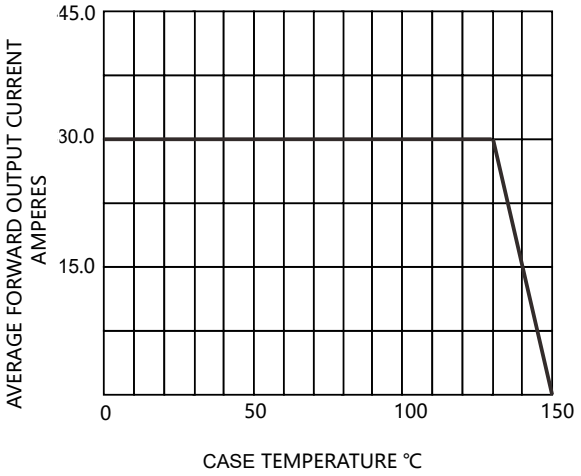
2.Pulse test: pulse width≤40ms

Thermal Characteristcs

Parameter	Symbol	GBJ	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	0.8	℃/W

3.Thermal resistance from per diode junction to case

FIG.1-Forward Current Derating Curve



FLG.2-Maximum Forward Sunrge Current

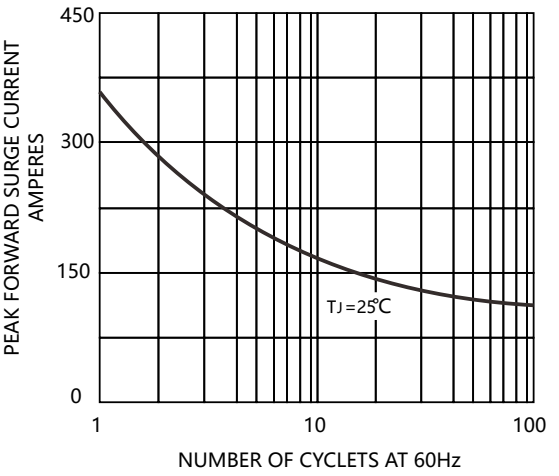


FIG.3-Typical Forward Characteristics

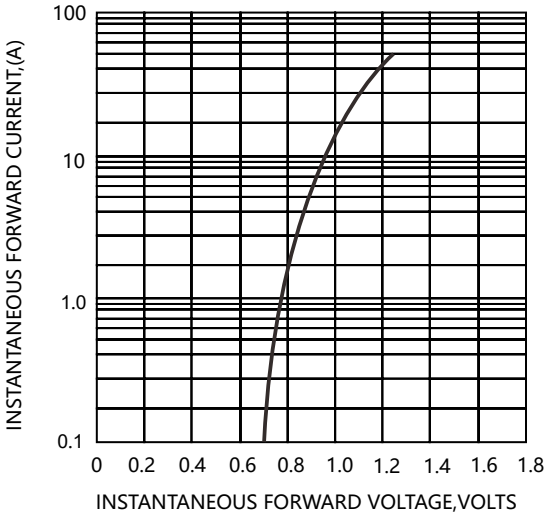


FIG.4 -Typical Reverse Characteristics