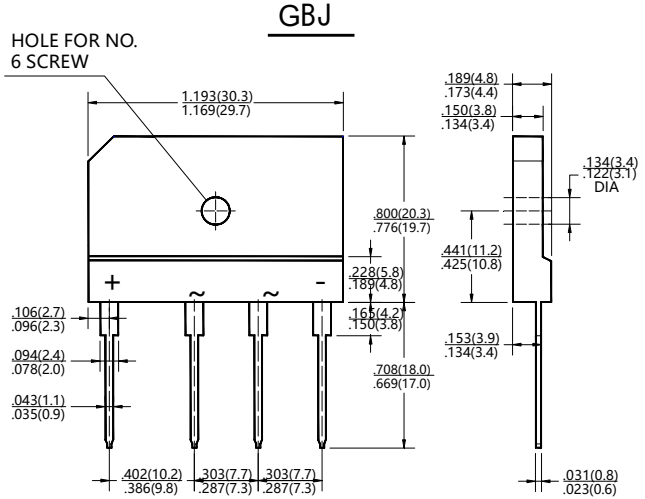


Features

- 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



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	GBJ4001	GBJ4002	GBJ4004	GBJ4006	GBJ4008	GBJ4010	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	40.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method, Total device)	I_{FSM}	400						A
Rating for fusing ($t < 8.3ms$)	I^2t	374						A ² S
Operating junction temperature range	T_j	-55 to 150						°C
Storage temperature range	T_{stg}	-55 to 150						°C

Electrical Characteristics (Per diode, $T_A=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	GBJ4001	GBJ4002	GBJ4004	GBJ4006	GBJ4008	GBJ4010	Unit
Max Instantaneous forward voltage	$I_F=20.0\text{A}$		$V_F^{1)}$	1.20						V
Max Reverse current	$V_R=V_{RRM}$	$T_A=25^\circ\text{C}$	$I_R^{2)}$	5						μA
		$T_A=100^\circ\text{C}$		100						
		$T_A=125^\circ\text{C}$		500						

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

2.Pulse test: pulse width $\leq 40\text{ms}$

Thermal Characteristics

Parameter	Symbol	GBJ	Unit
Typical thermal resistance ³⁾	$R_{\theta\text{JC}}$	0.8	$^\circ\text{C/W}$

3.Thermal resistance from per diode junction to case

FIG.1-Forward Current Derating Curve

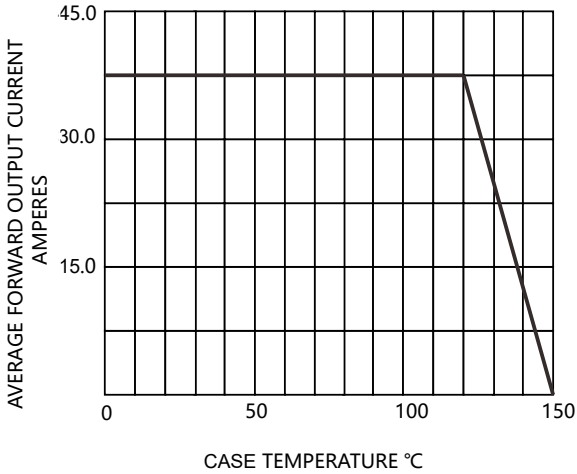


FIG.2-Maximum Forward Surge Current

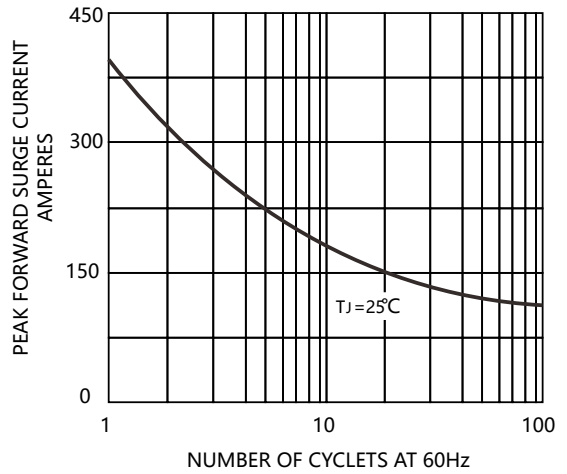


FIG.3-Typical Forward Characteristics

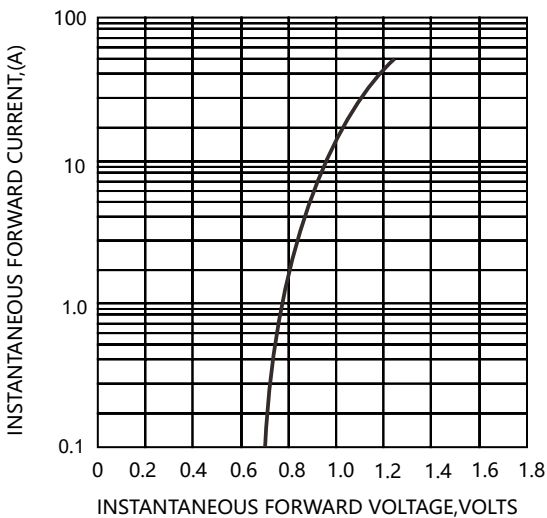
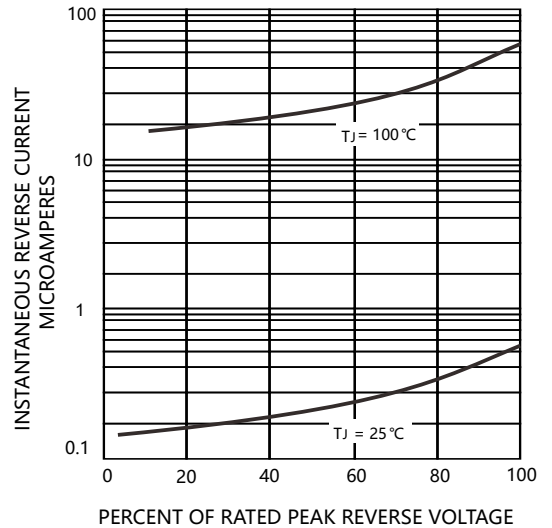


FIG.4 -Typical Reverse Characteristics



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