

CURRENT 25 Ampere
VOLTAGE RANG 50 to 1000 Volts

GBJ25005 THRU GBJ2510



Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500VRMS Ideal for printed circuit boards
- High surge current capability

Mechanical Data

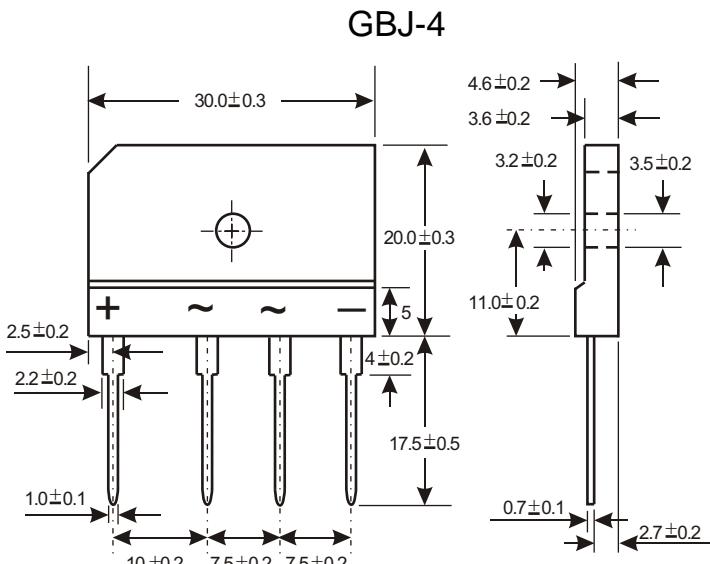
Case : Molded plastic body over passivated junctions
Terminals : Plated leads solderable per MIL-STD-750,
Method 2026

Polarity : Polarity symbols molded on body

Mounting Position : Any(3)

Mounting Torque : 5 in-lbs max.

Weight : 0.26 ounce, 7.0 grams (approx)



Dimensions in millimeters(1mm = 0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward (with heatsink note1) rectified current at Tc=100°C (without heatsink)	IF(AV)	25.0 4.2						A	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	350						A	
Rating for fusing (t<8.3ms)	I ² t	510						A ² sec	
Typical thermal resistance per element (note 1)	RthJC	1.0						°C / W	
Operating junction and storage temperature range	T _J , T _{TSG}	-55 to + 150						°C	

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Maximum instantaneous forward voltage drop per leg at 12.5 A	VF	1.05						V	
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	10.0 500						μA	

Notes: (1) Device mounted on 250mm x 250mm x 20mm aluminum plate heatsink.

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Rating and Characteristic Curves ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

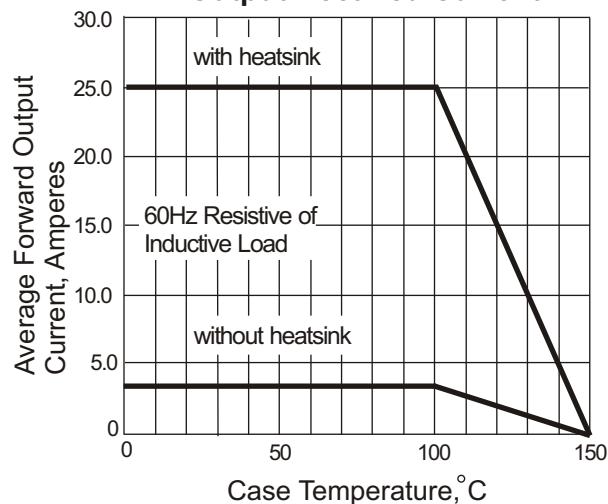


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

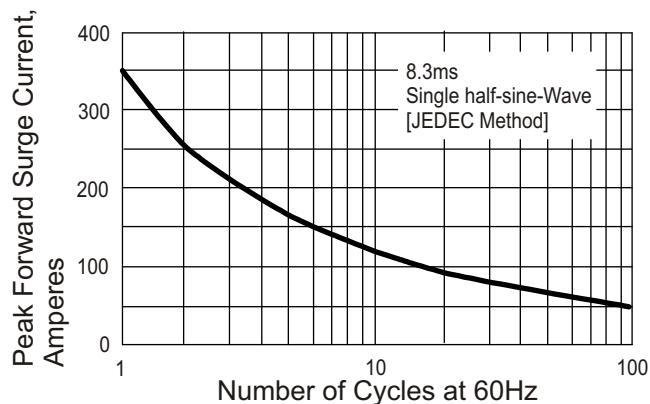


Fig. 3 Typical Instantaneous Forward Characteristics

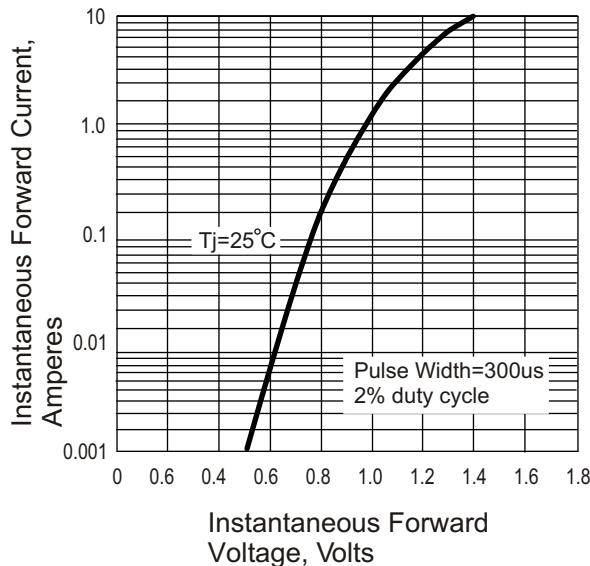


Fig. 4 Typical Reverse Characteristics at $T_J = 25^\circ\text{C}$

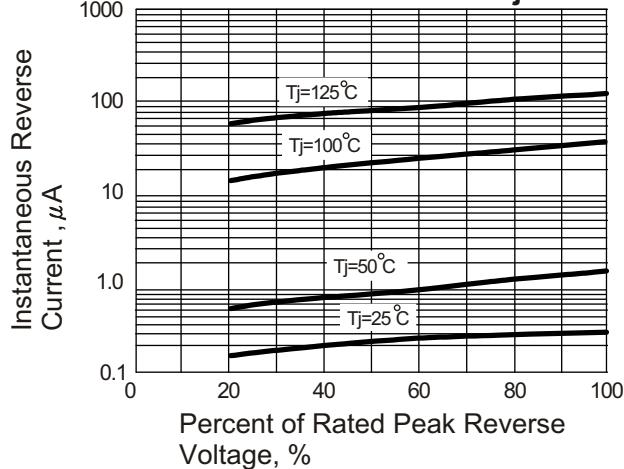


Fig. 5 Typical Junction Capacitance

