

CURRENT 10 Ampere
VOLTAGE RANG 50 to 1000 Volts

GBJ10005 THRU GBJ1010

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

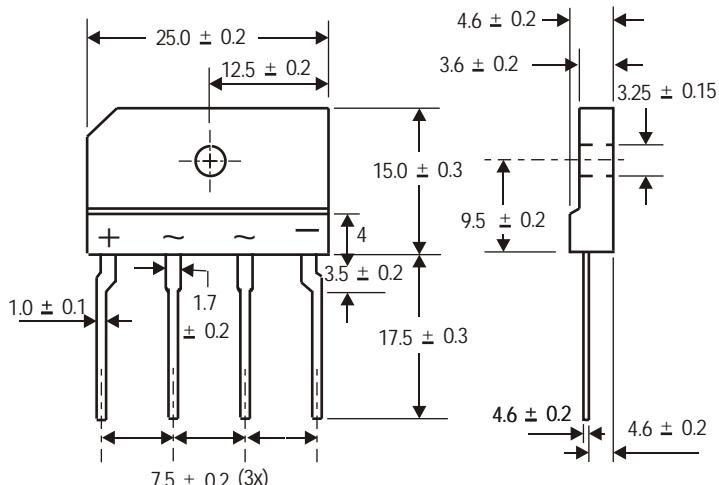
Terminals : Plated leads solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbols molded on body

Mounting Position : Any(3)

Mounting Torque : 5 in-lbs max.

Weight : 0.15 ounce, 4.0 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 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	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)	10.0 3.2							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	240							A
Rating for fusing (t<8.3ms)	I ² t	240							A ² sec
Typical thermal resistance per element (note 1)	RthJC	0.8							°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 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	Unit
Maximum instantaneous forward voltage drop per leg at 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 300mm x 300mm x 1.6mm copper 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

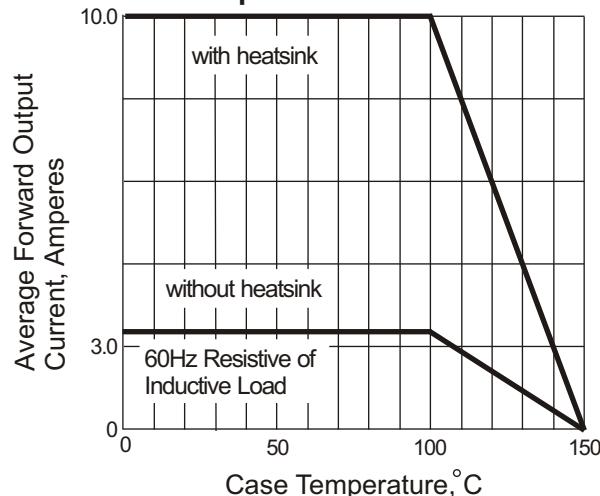


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

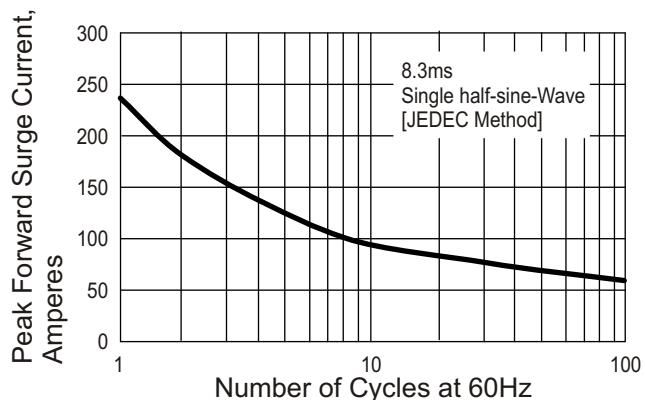


Fig. 3 Typical Instantaneous Forward Characteristics

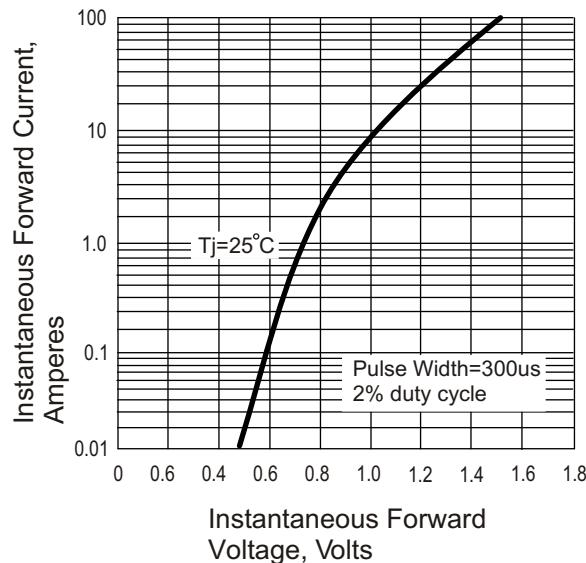


Fig. 4 Typical Reverse Characteristics at $T_j = 25^\circ\text{C}$

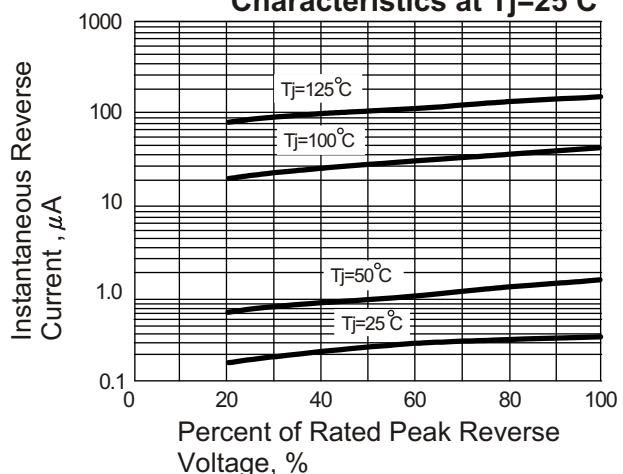


Fig. 5 Typical Junction Capacitance

