

CURRENT 15 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

## GBJ15005 THRU GBJ1510

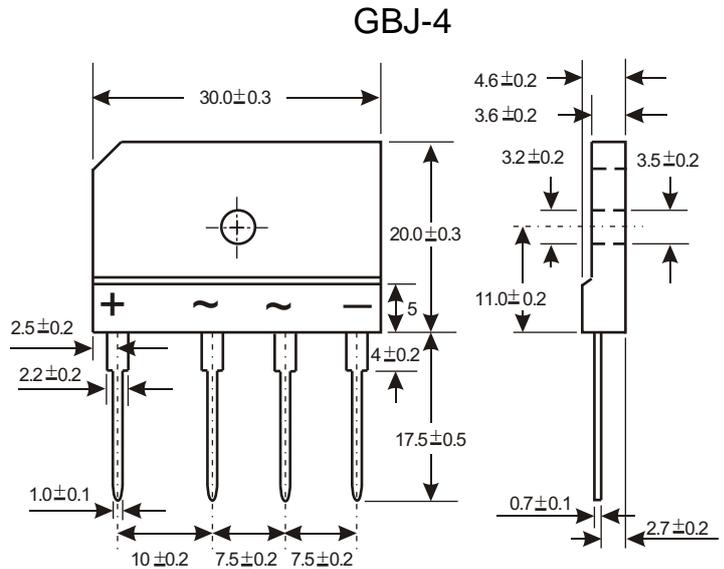


### Features

- 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 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	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)	15.0				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 <sup>2</sup> t					240				A <sup>2</sup> sec
Typical thermal resistance per element (note 1)	RthJC					0.8				°C / W
Operating junction and storage temperature range	TJ, TSTG					-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 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Unit	
Maximum instantaneous forward voltage drop per leg at 7.5 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				μA
						500				

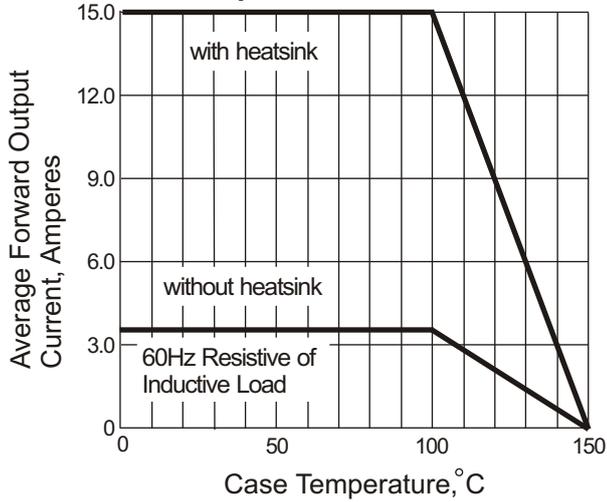
Notes: (1) Device mounted on 300mm x 300mm x 1.6mm copper plate heatsink.

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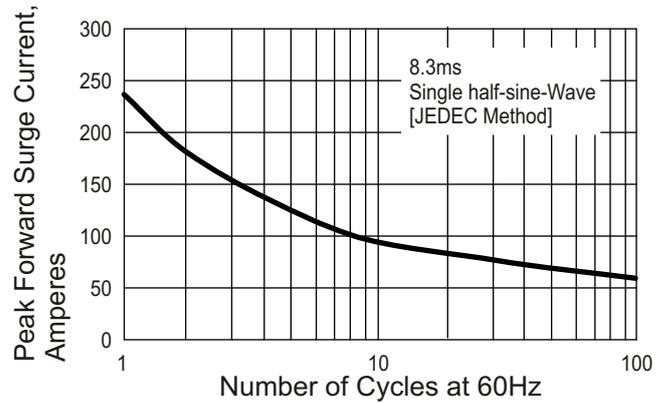
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Rating and Characteristic Curves (  $T_A=25^{\circ}\text{C}$  Unless otherwise noted )

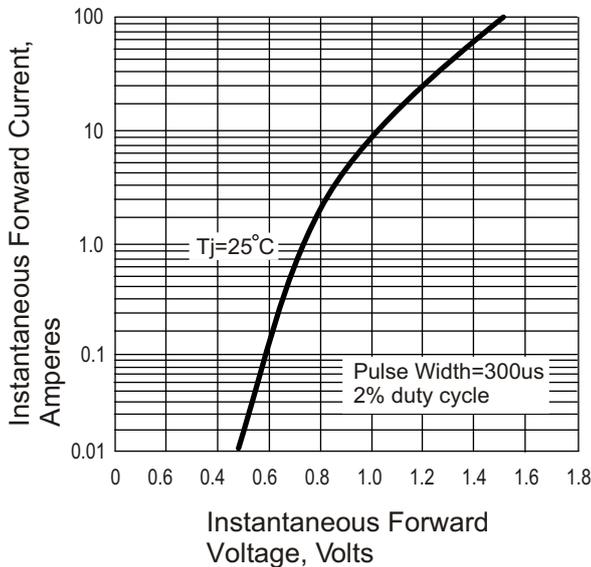
**Fig. 1 Derating Curve for Output Rectified Current**



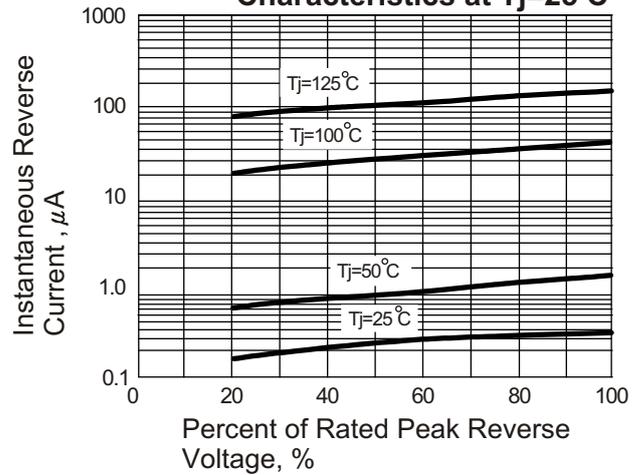
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



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



**Fig. 5 Typical Junction Capacitance**

