

**CURRENT**      6 Ampere  
**VOLTAGE RANG**    50 to 1000 Volts

## GBJ6005 THRU GBJ610

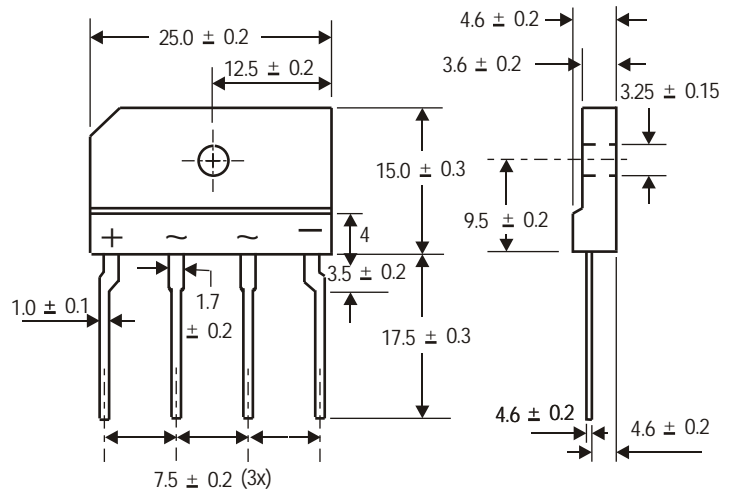
### Features

- 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

Terminals : Plated leads solderable per MIL-STD-750,  
 Case : Molded plastic body over passivated junctions  
 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 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS 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 rectified output current Tc =100°C TA =25°C	IF(AV)				6.0(1) 2.3(2)				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM				120				A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t				60				A <sup>2</sup> sec
Maximum thermal resistance per leg	RejA RejC				2.6(2) 5 (1)				°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 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	VF				1.0				V
Maximum DC reverse current at rated DC blocking voltage per leg TA =25°C TA =125°C	IR				10 250				μA

**Notes:** (1)Unit case mounted on Al plate heatsink.

(2)Units mounted on P.C.B. with 0.5x0.5"(12x12mm) copper pads and 0.375"(9.5) lead length.

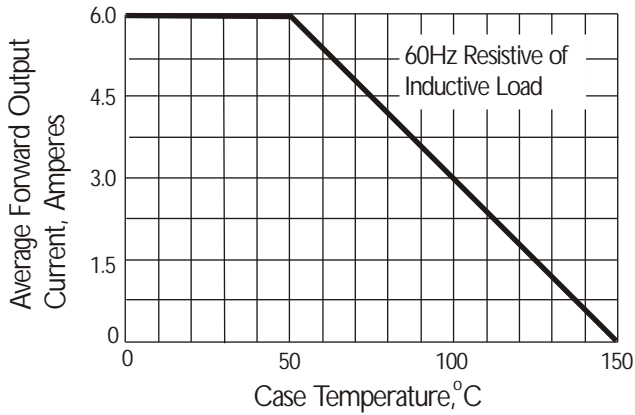
(3)Recommended mounting position is to bolt down on heat sink with silicone thermal compound for maximum heat transfer with #6 screw.

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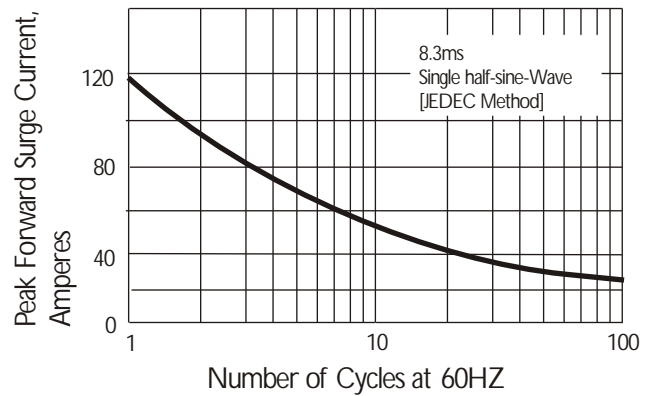
**GBJ6005 THRU GBJ610**

**Rating and Characteristic Curves** (TA=25°C Unless otherwise noted)

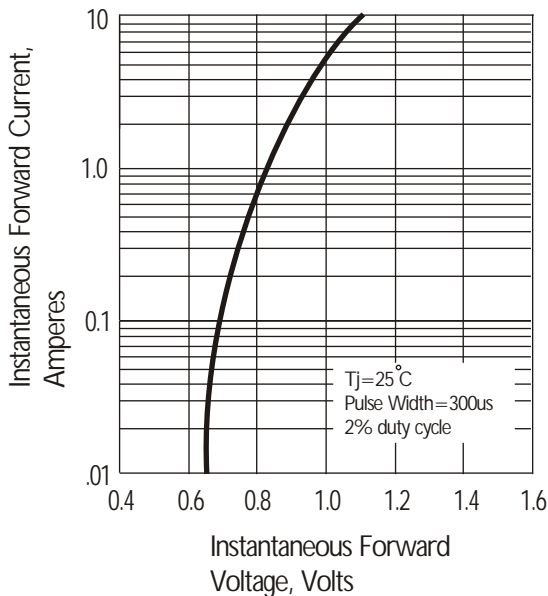
**Fig. 1 Derating Curve for Output Rectified Current**



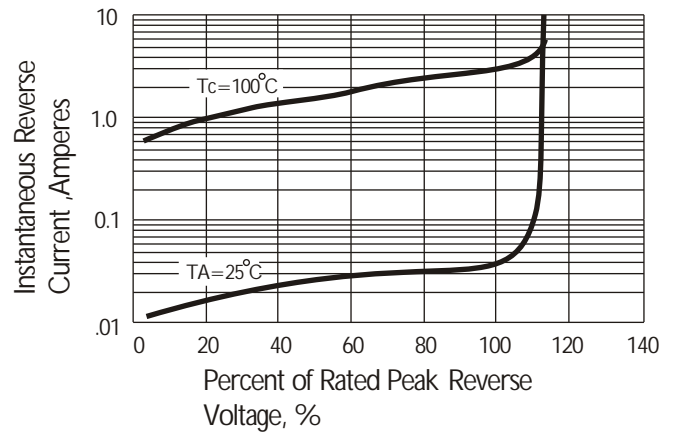
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics at TJ=25°C**



**Fig. 5 Typical Junction Capacitance**

