



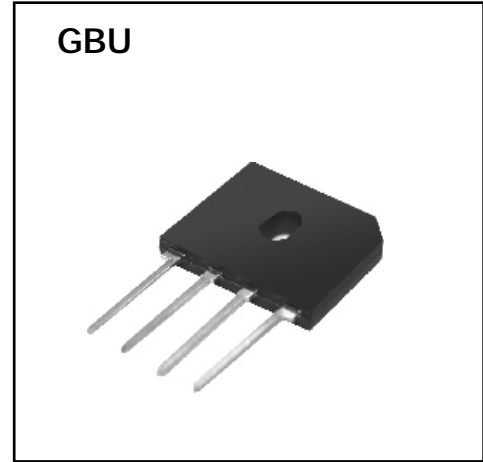
### GBU8005 thru GBU810

#### Features

- Ideal for P.C. Board mounting
- High surge current capability
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

#### Mechanical Data

Case: Molded plastic body  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Polarity: Polarity symbols molded on body  
 Mounting Position:: Any  
 Mounting Torque: 5 in-lbs max.  
 Weight: 4.0 grams (approx)



#### 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	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	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 TA=100 C (without heatsink)	IF(AV)					8.0				A
						3.2				
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM					200				A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t					166				A <sup>2</sup> sec
Typical thermal resistance per element (note 1)	RthJC					2.2				°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	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	Unit	
Maximum instantaneous forward voltage drop per leg at 4.0A	VF					1.1				V
Maximum DC reverse current at rated DC blocking voltage per element	IR					5.0				μA
						500				

Notes: (1) Device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.





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

Fig. 1 Derating Curve for Output Rectified Current

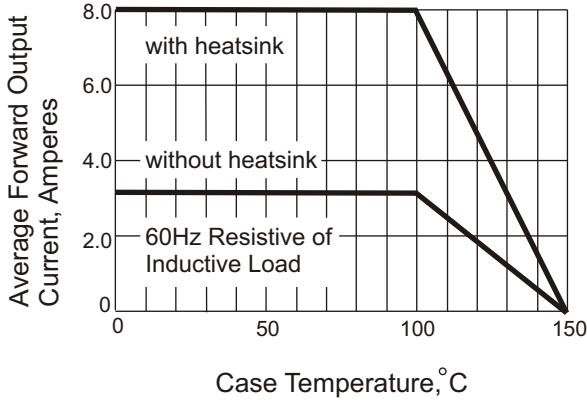


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

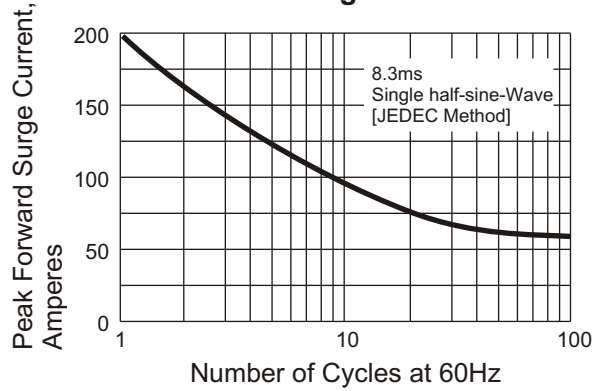


Fig. 3 Typical Instantaneous Forward Characteristics

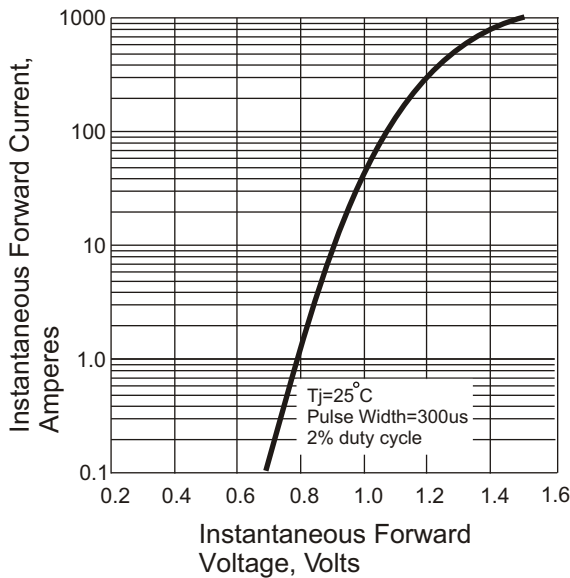


Fig. 4 Typical Revers Characteristics

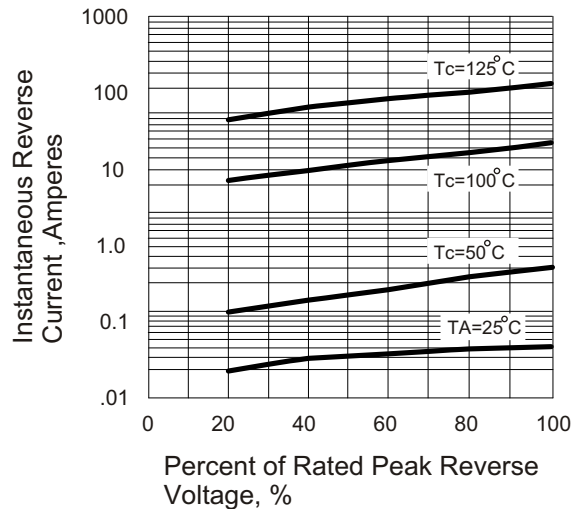


Fig. 5 Typical Junction Capacitance

