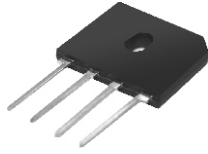




GBU10005 thru GBU1010

10.0 A Single-Phase Bridge Rectifier Rectifier Reverse Voltage 50 to 1000V

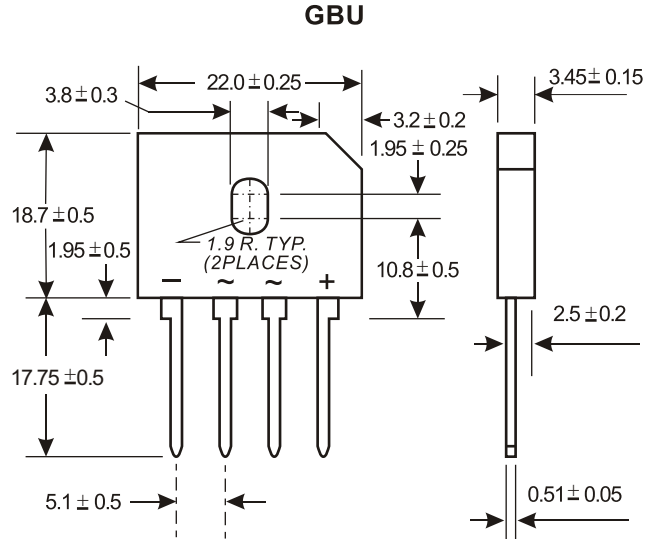


Features

- 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)



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	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 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 note 1) 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					220				A
Rating for fusing (t<8.3ms)	I ² t					200				A ² sec
Typical thermal resistance per element (note 1)	RthJC					2.0				°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 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit	
Maximum instantaneous forward voltage drop per leg at 5.0A	VF					1.0				V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR					5.0 500				μA

Notes: (1) Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.

Rating and Characteristic Curves ($T_A=25^\circ\text{C}$ Unless otherwise noted) GBU10005 thru GBU1010

Fig. 1 Derating Curve for Output Rectified Current

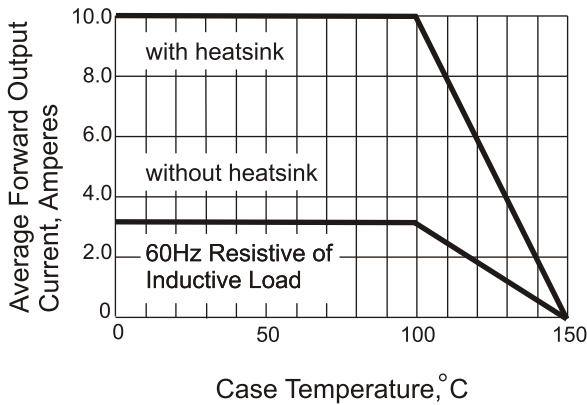


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

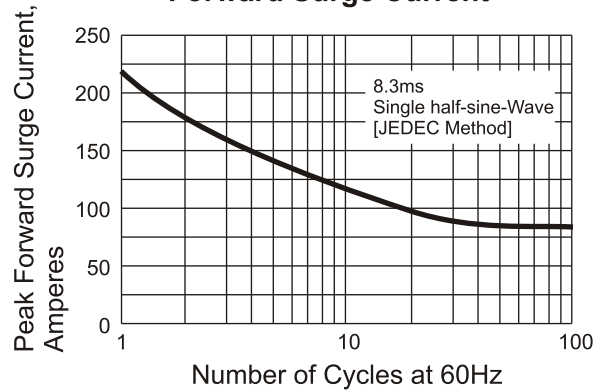


Fig. 3 Typical Instantaneous Forward Characteristics

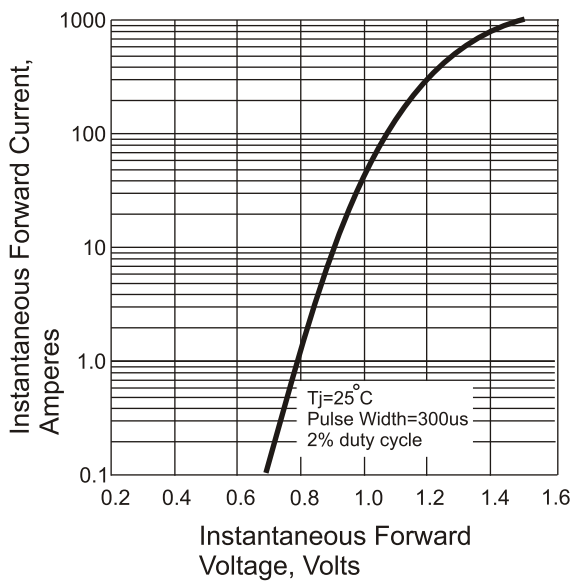


Fig. 4 Typical Revers Characteristics

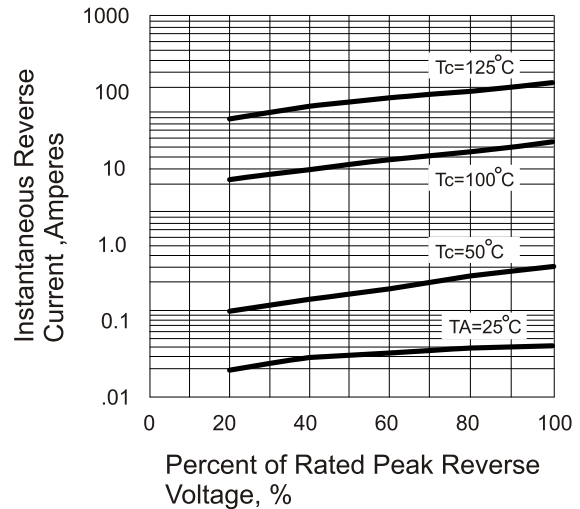


Fig. 5 Typical Junction Capacitance

