

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

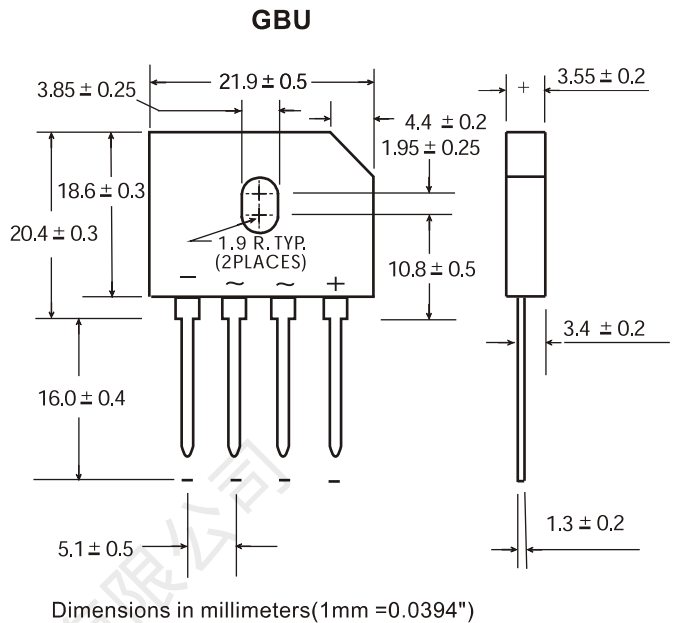


Features

- 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)



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 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 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	200							A
Rating for fusing (t<8.3ms)	I ² t	166							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 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	Unit
Maximum instantaneous forward voltage drop per leg at 7.5A	VF	1.1							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 200mm x 200mm x 5.0mm Al Plate Heatsink.

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

GBU15005 thru GBU1510

Fig. 1 Derating Curve for Output Rectified Current

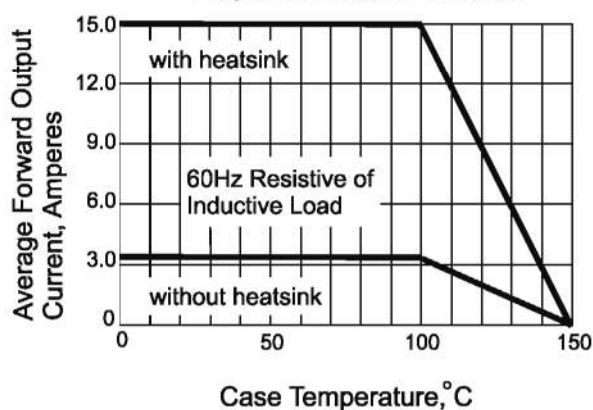


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

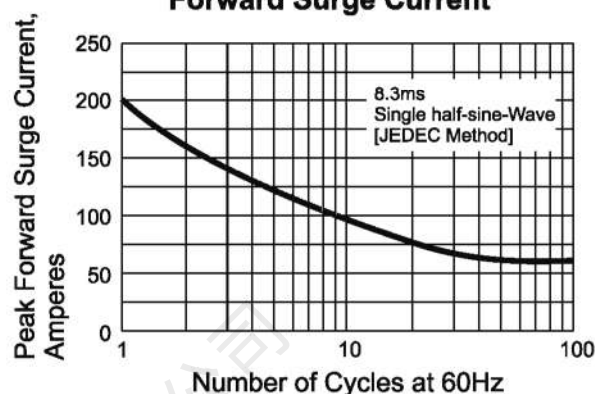


Fig. 3 Typical Instantaneous Forward Characteristics

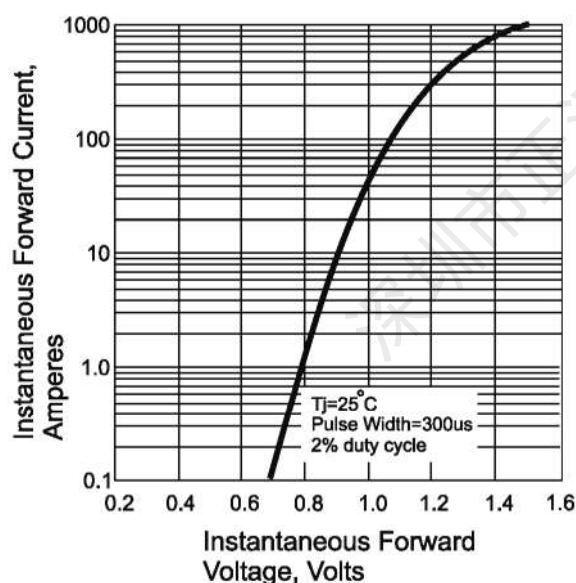


Fig. 4 Typical Revers Characteristics

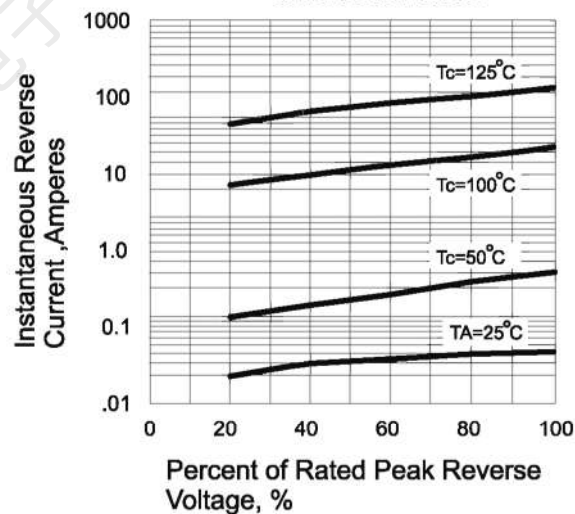


Fig. 5 Typical Junction Capacitance

