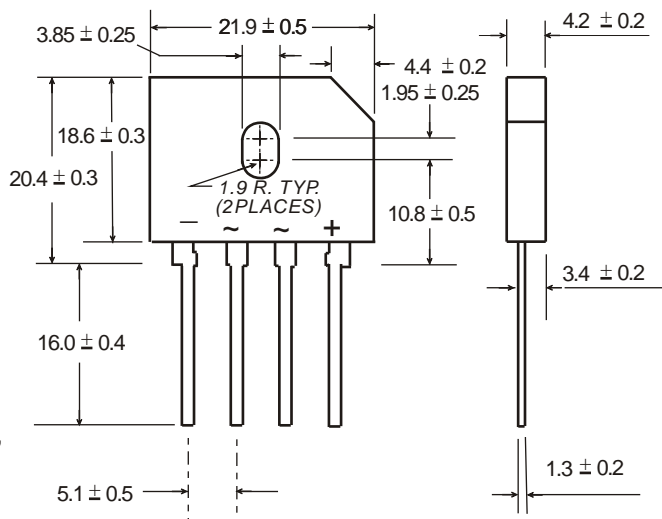


4.0 A Single-Phase Bridge Rectifier
Rectifier Reverse Voltage 50 to 1000V

GBU



Dimensions in millimeters(1mm = 0.0394")

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: 3.8 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 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	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 (1)) rectified current at TA=100°C (without heatsink)	IF(AV)					4.0			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM					150			A
Rating for fusing (t<8.3ms)	I ² t					93			A ² sec
Typical thermal resistance per element (2)	RthJC					3.0			°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 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	Unit
Maximum instantaneous forward voltage drop per leg at 2.0A	VF					1.1			V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR					5.0			μA
						500			

Notes: (1) Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
 (2) Thermal resistance from Junction to Ambient on P.C.board mounting.

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

GBU4005 thru GBU410

Fig. 1 Derating Curve for Output Rectified Current

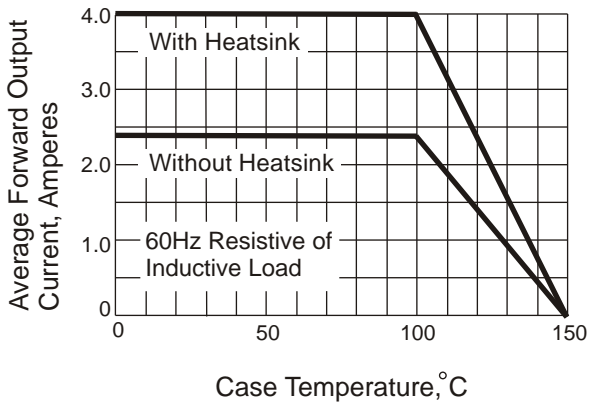


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

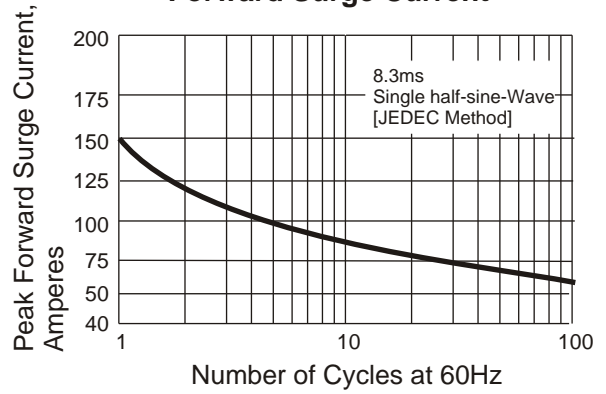


Fig. 3 Typical Instantaneous Forward Characteristics

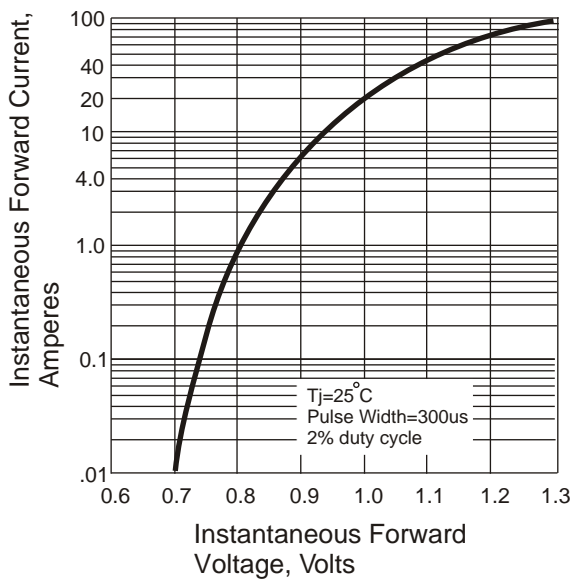


Fig. 4 Typical Revers Characteristics

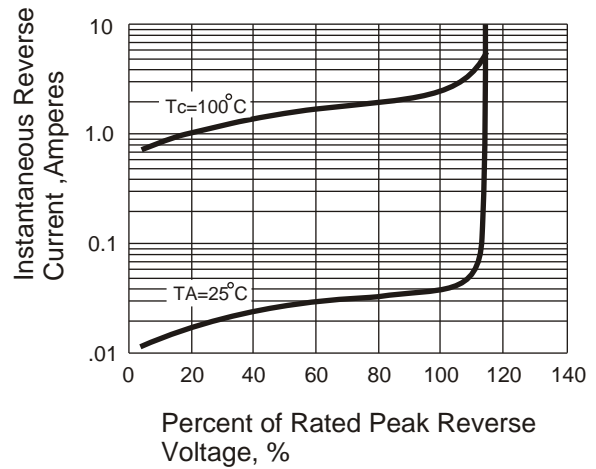


Fig. 5 Typical Junction Capacitance

