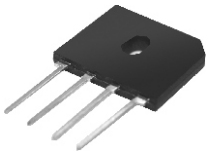
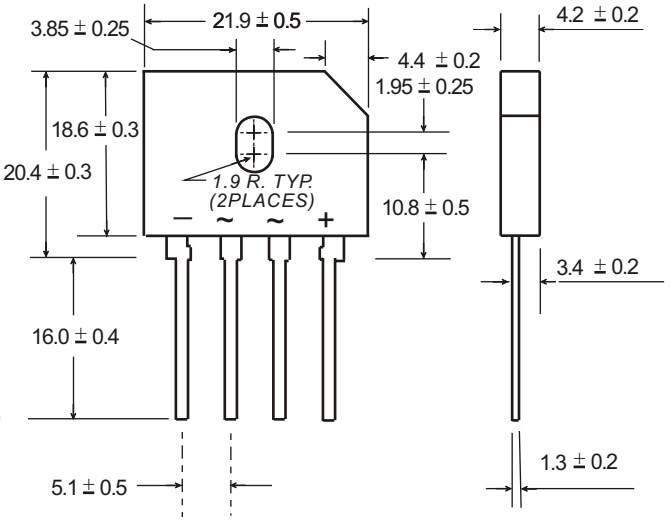
GBU25005 thru GBU2510

25.0 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: 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 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	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)	25.0 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^2t	166							A^2sec
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℃ ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	GBU 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	Unit
Maximum instantaneous forward voltage drop per leg at 4.0A	VF	1.1							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	5.0 500							μA

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

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

GBU25005 thru GBU2510

Fig. 1 Derating Curve for Output Rectified Current

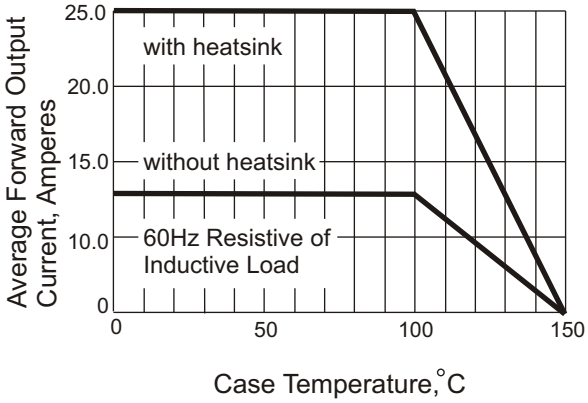


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

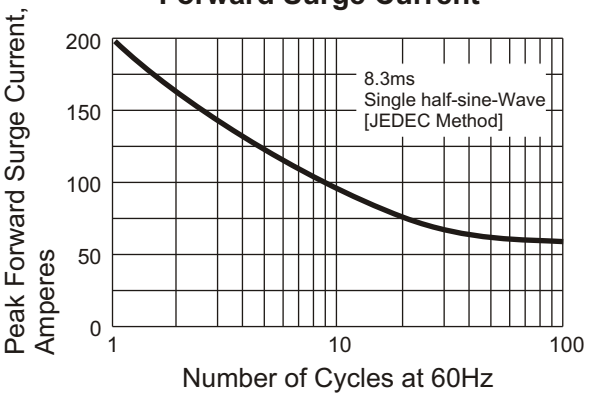


Fig. 3 Typical Instantaneous Forward Characteristics

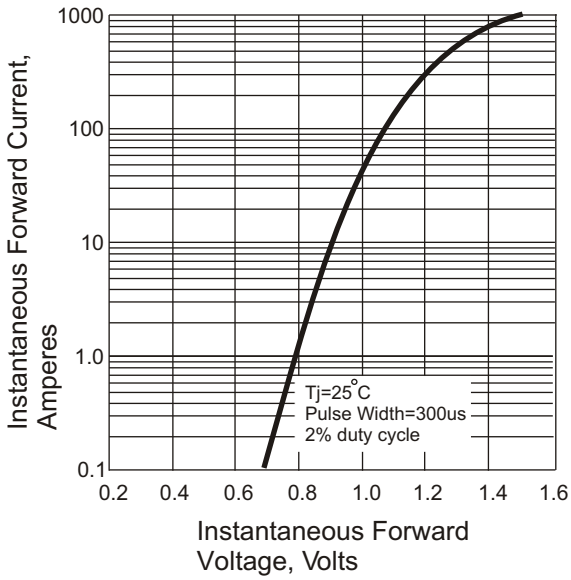


Fig. 4 Typical Revers Characteristics

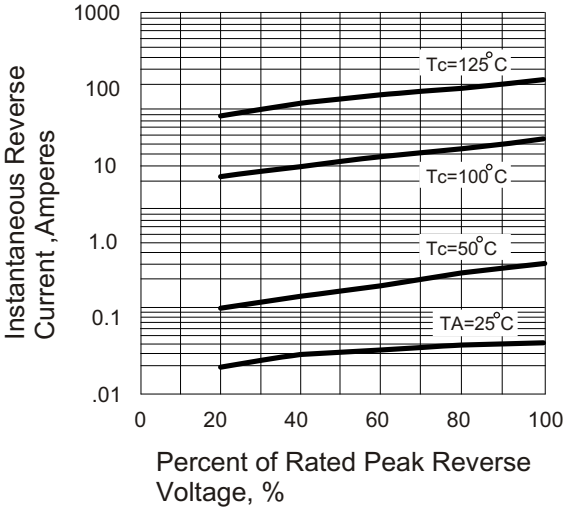


Fig. 5 Typical Junction Capacitance