

25.0 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

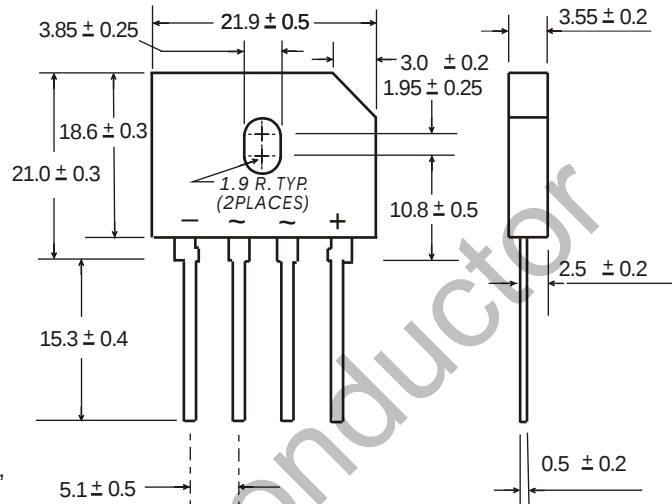


Features

- Ideal for P.C. Board mounting
- High surge current capability
- This series is UL listed under the Recognized Component Index, file number E142814
- 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)



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 2500	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 rectified output current at TA=100°C	IF(AV)	25							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	350							A
Rating for fusing (t<8.3ms)	I ² t	200							A ² sec
Typical thermal resistance per element(1)	ReJA	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 2500	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	Unit
Maximum instantaneous forward voltage drop per leg at 10.0A	VF	1.05							V
Maximum DC reverse current at rated TA =25°C	IR	5.0							μA
DC blocking voltage per element TA =125°C		500							

Notes: (1) Thermal resistance from Junction to Ambient on P.C.board mounting.

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Rating and Characteristic Curves ($T_A = 25^\circ\text{C}$ Unless otherwise noted)
GBU2500 thru GBU2510

Fig. 1 Derating Curve for Output Rectified Current

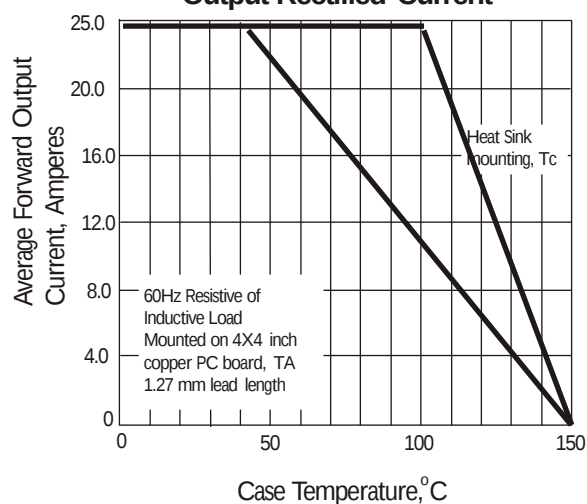


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

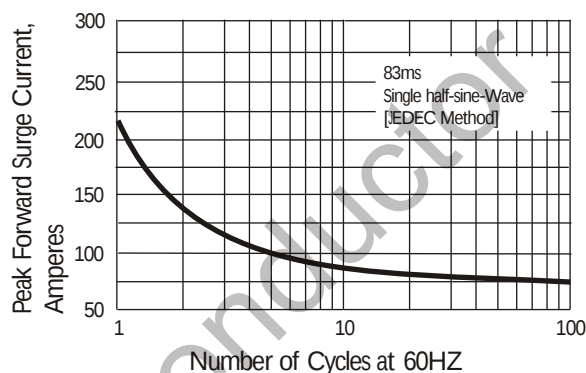


Fig. 3 Typical Instantaneous Forward Characteristics

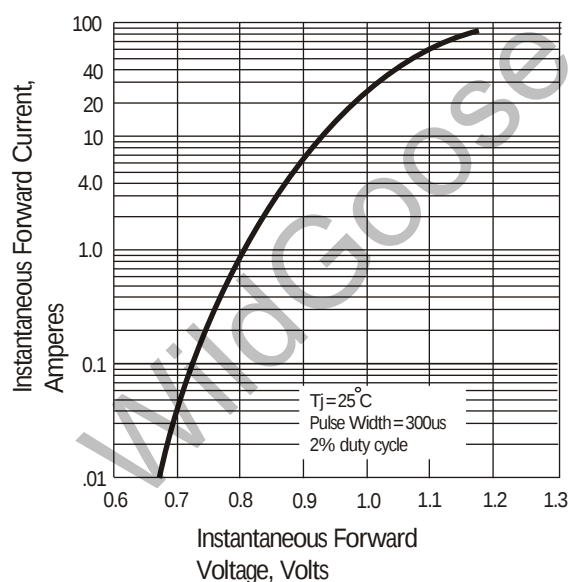


Fig. 4 Typical Reverse Characteristics

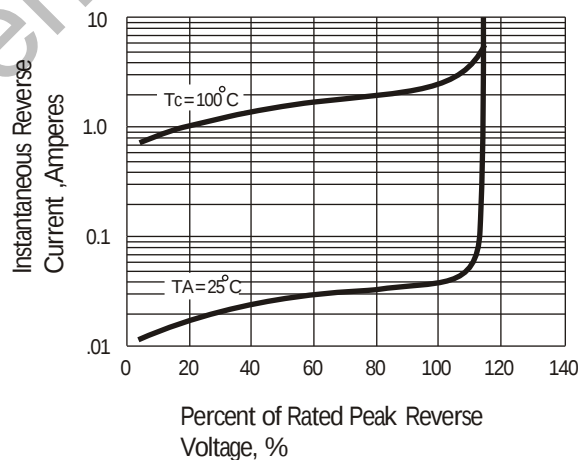


Fig. 5 Typical Junction Capacitance

