



# GBU25005 THRU GBU2510

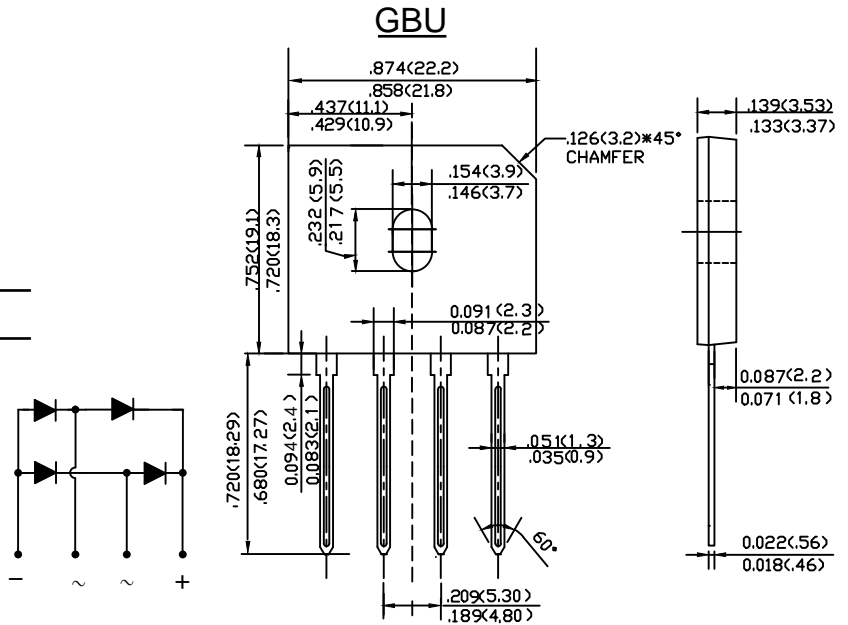
SINGLE PHASE 25.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

## Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

## Mechanical Data

- Case: GBU, molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version



dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	GBU 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (with heatsink) @ $T_c = 90^\circ C$ (without heatsink)	$I_{F(AV)}$				25.0 3.6				A
Non-Repetitive Peak Forward Surge Current @ $T_J = 25^\circ C$ 8.3ms Single half sine-wave superimposed @ $T_J = 125^\circ C$ on rated load (JEDEC Method)	$I_{FSM}$				350 280				A
Non-Repetitive Peak Forward Surge Current 1 ms Single half sine-wave @ $T_J = 125^\circ C$ superimpose on rated load (JEDEC Method)	$I_{FSM}$				700 560				A
Forward Voltage per element @ $I_F = 12.5A$	$V_{FM}$				1.0				V
Peak Reverse Current @ $T_J = 25^\circ C$ At Rated DC Blocking Voltage @ $T_J = 125^\circ C$	$I_R$				5.0 200				$\mu A$
$I^2t$ Rating for fusing ( $t < 8.3ms$ )	$I^2t$				508.375				$A^2s$
Dielectric Strength	$V_{ids}$				2500				V
The proposed installation torque Max torque	$T_{or}$				5.0 8.0				Kgf.cm
Typical Junction Capacitance (Note 1)	$C_J$				110				pF
Typical Thermal Resistance	$R_{\theta JA}$				28				$^\circ C/W$
	$R_{\theta JC}$				8.7				
	$R_{\theta JL}$				5.3				
Operating and Storage Temperature Range	$T_J, T_{STG}$				-55to+150				$^\circ C$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Fig. 1 Output Current Derating Curve

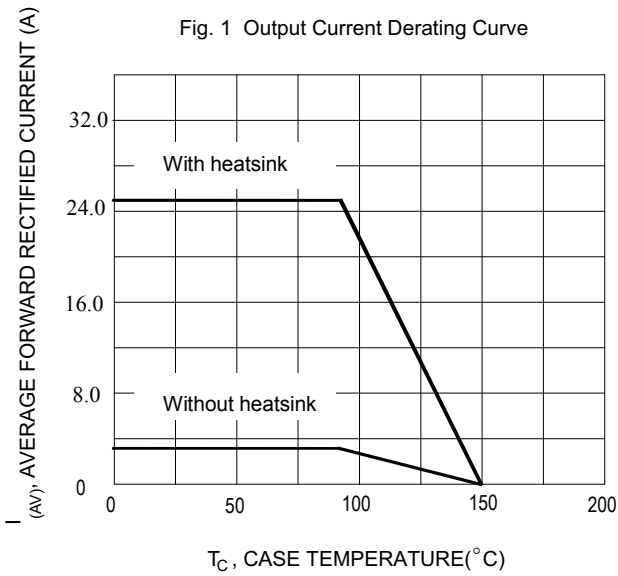


Fig. 2 Typical Forward Characteristics

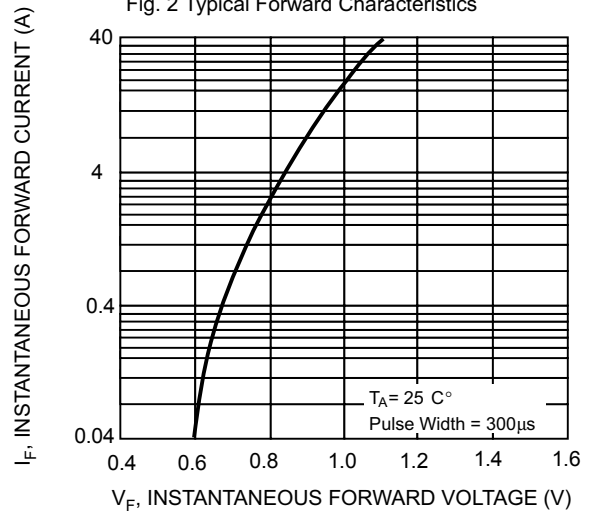


Fig. 3 Maximum Peak Forward Surge Current

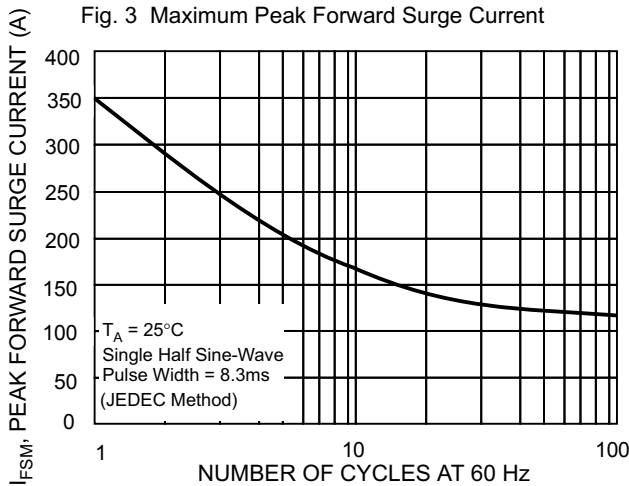


Fig. 4 Typical Junction Capacitance

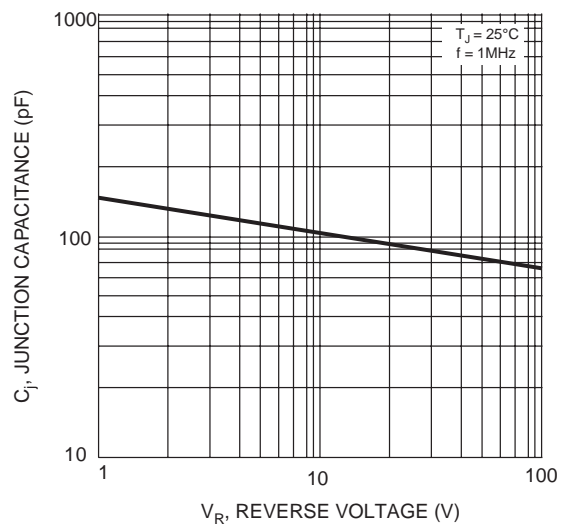
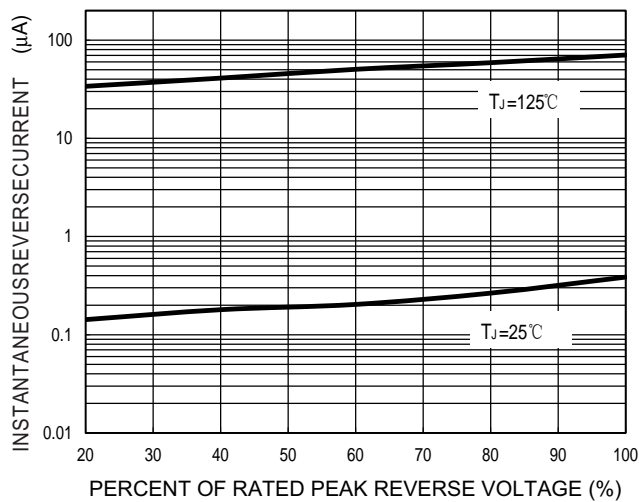


Fig. 5 Typical Reverse Characteristics





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