

# GBU15005 THRU GBU1510

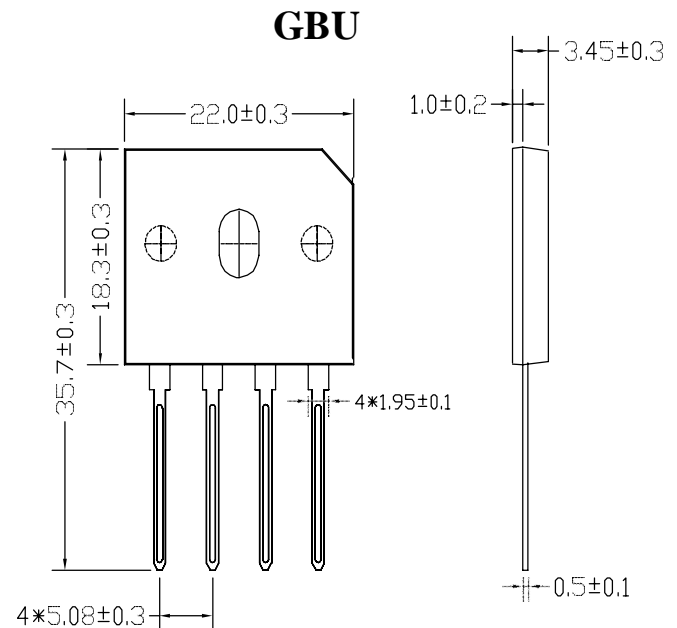
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS  
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 15 Ampere

## FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High forward surge capability

## Mechanical Data

- ◆ Case: GBU Molded plastic body
- ◆ Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- ◆ High temperature soldering guaranteed: 260°C/10 seconds
- ◆ Mounting Position: Any



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $T_A = 25^\circ\text{C}$  unless otherwise specified

PARAMETER	SYMBOL	GBU 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average forward rectified output current $T_C = 80^\circ\text{C}$ With heatsink $T_A = 25^\circ\text{C}$ Without heatsink	$I_{F(AV)}$	15.0 3.2						A	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200						A	
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	166						$\text{A}^2\text{sec}$	
Maximum instantaneous forward voltage dropper leg at 7.5A	$V_F$	1.0						V	
Maximum DC reverse current at Rated DC blocking voltage per leg	$I_R$	$T_j = 25^\circ\text{C}$ : 5.0 $T_j = 125^\circ\text{C}$ : 500						$\mu\text{A}$	

## THERMAL CHARACTERISTICS

Typical thermal resistance per leg (Note 1)	$R_{\theta JA(2)}$	25	$^\circ\text{C}/\text{W}$
	$R_{\theta JL(1)(3)}$	2.3	
Operating junction temperature range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

- Note:**
1. Unit case mounted on aluminum plate heatsink
  2. Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12 mm) copper pads and 0.375" (9.5 mm) lead length
  3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

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## Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

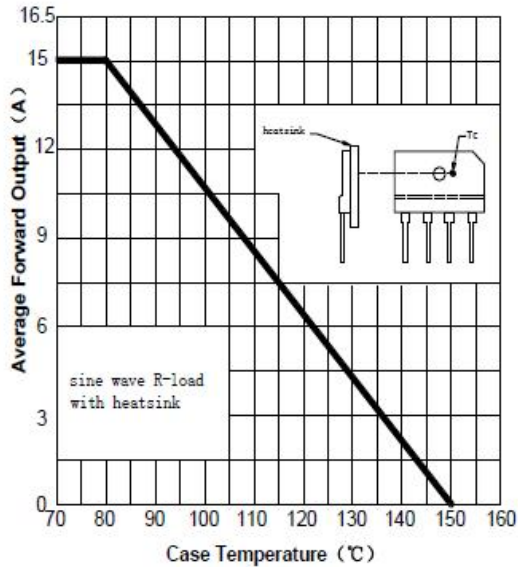


Fig.1-Forward Current Derating Curve

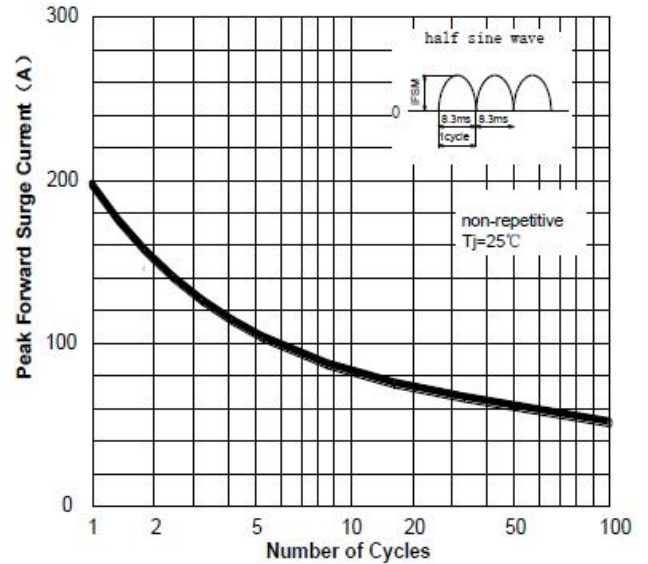


FIG2: Surge Forward Current Capability

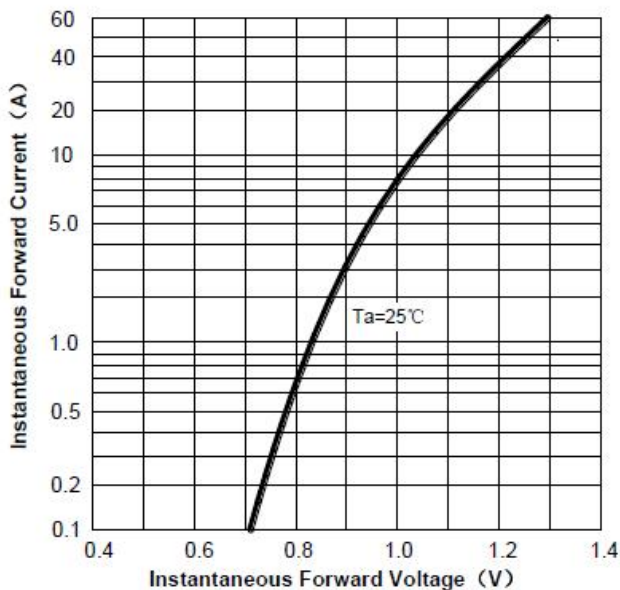


Fig.3- Typical Forward Voltage Characteristic

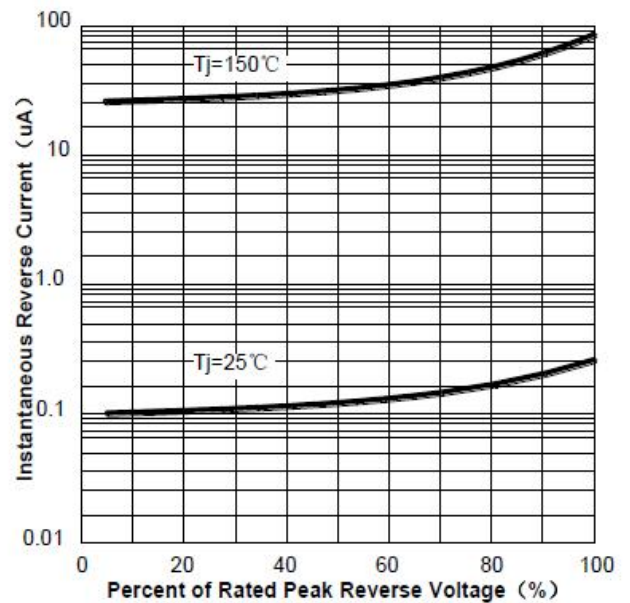


FIG4: Typical Reverse Characteristics

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.