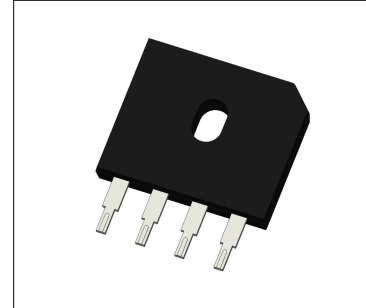


# Bridge Rectifiers

# GBU15005—GBU1510

## 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

## Maximum Ratings & Electrical Characteristics

Ratings at TA = 25°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			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$					200			A
Rating for fusig ( $t < 8.3\text{ms}$ )	$I^2t$					166			A <sup>2</sup> sec
Maximum instantaneous forward voltage dropper leg at 7.5A	VF					1.0			V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_J = 25^\circ\text{C}$					5.0			uA
	$T_J = 125^\circ\text{C}$					500			

## Thermal Characteristics

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

Bridge Rectifiers

GBU15005—GBU1510

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

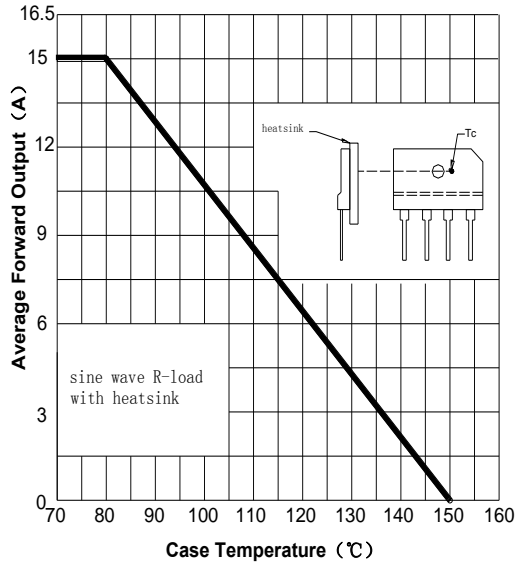


Fig.1-Forward Current Derating Curve

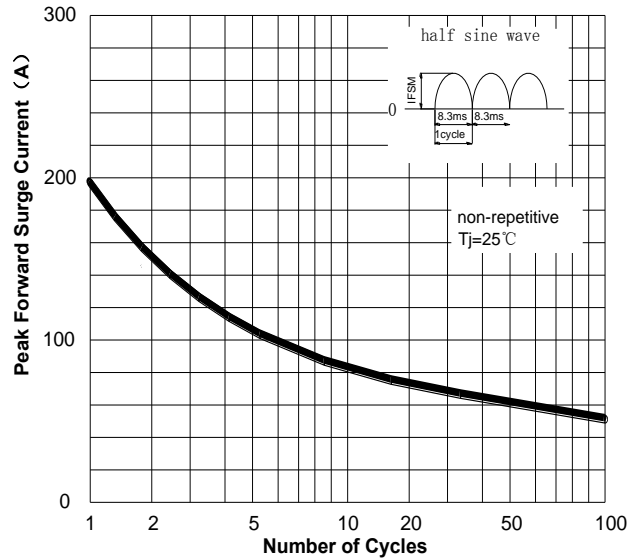


FIG2: Surge Forward Current Capability

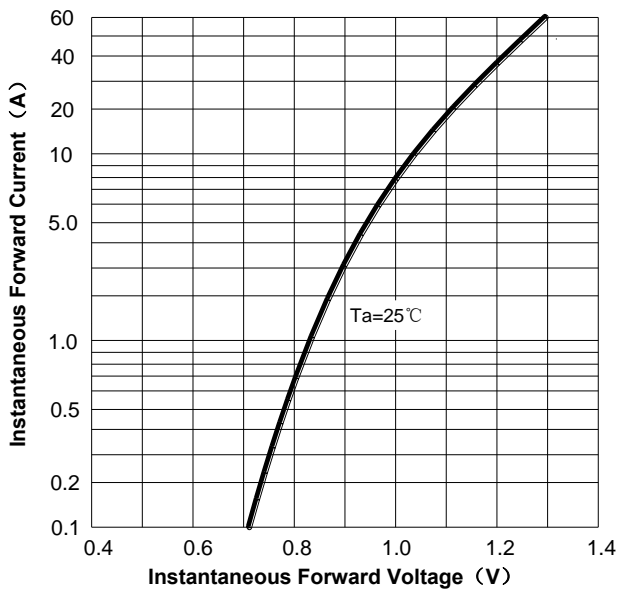


Fig.3- Typical Forward Voltage Characteristic

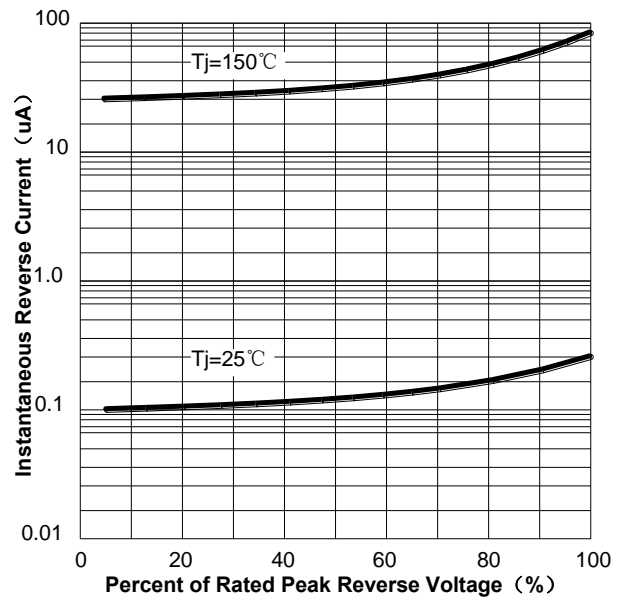
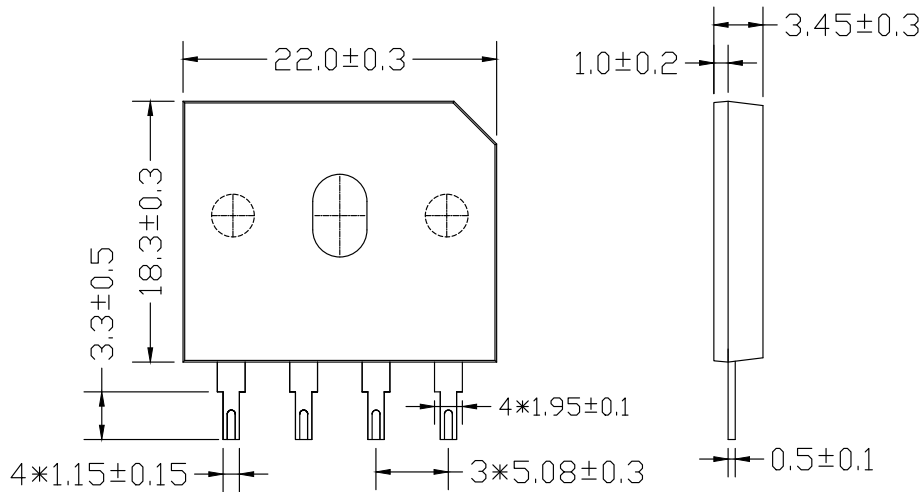


FIG4: Typical Reverse Characteristics

## Bridge Rectifiers

## GBU15005—GBU1510

### Package Outline Dimensions(unit:mm)



### Ordering Information

Part No.	Marking	Package
GBU15005	GBU15005	GBU
GBU1501	GBU1501	GBU
GBU1502	GBU1502	GBU
GBU1504	GBU1504	GBU
GBU1506	GBU1506	GBU
GBU1508	GBU1508	GBU
GBU1510	GBU1510	GBU