

## Single Phase 12.0Amp Glass passivated Bridge Rectifiers

**GBU**
**RoHS**  
 COMPLIANT

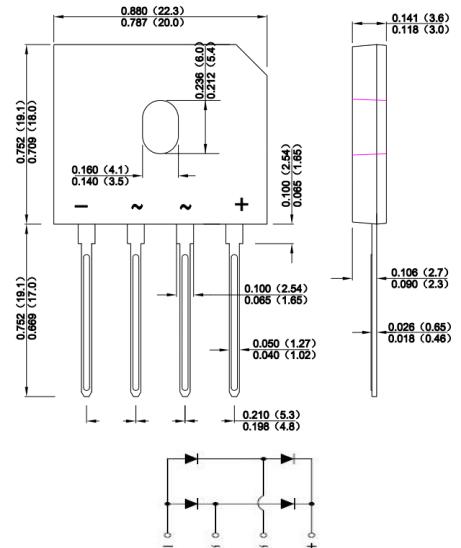

 Pb-Free

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260°C/10 seconds at terminals

### Mechanical Data

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	GBU 12005	GBU 1201	GBU 1202	GBU 1204	GBU 1206	GBU 1208	GBU 1210	Units
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
Maximum average forward rectified current with heatsink	$I_{(AV)}$	12.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	240.0							A
Rating for fusing (t=8.3ms, T <sub>a</sub> =25°C)	$I^2t$	239							A <sup>2</sup> s
Maximum instantaneous forward voltage at 12.0A	$V_F$	1.10							V
Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =125°C	$I_R$	2.0 200							uA
Typical junction capacitance (Note 1)	$C_J$	58.0							pF
Typical thermal resistance	$R_{qJA}$	25.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

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

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

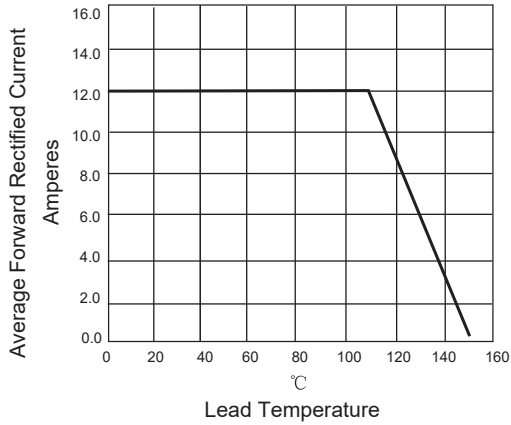


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

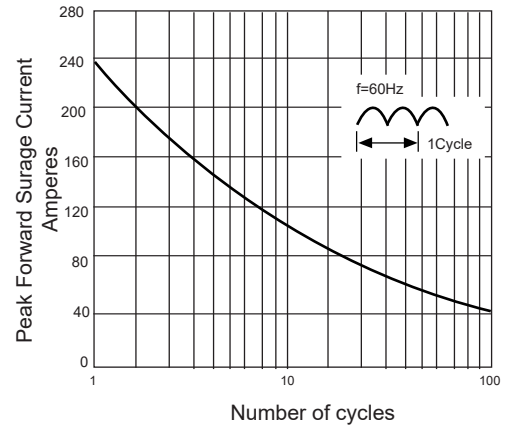


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

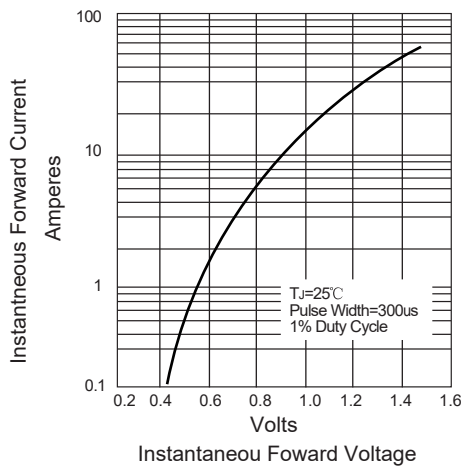
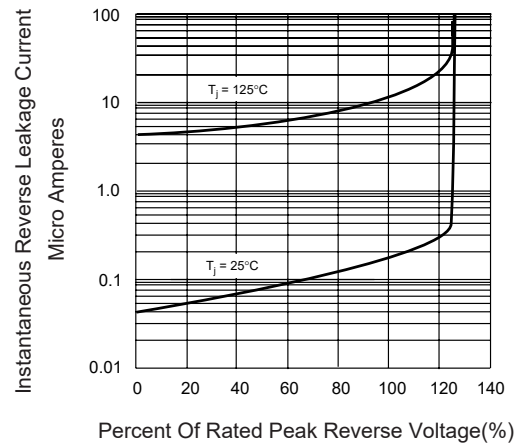
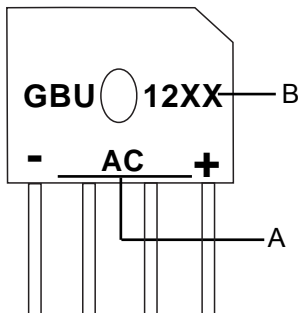


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

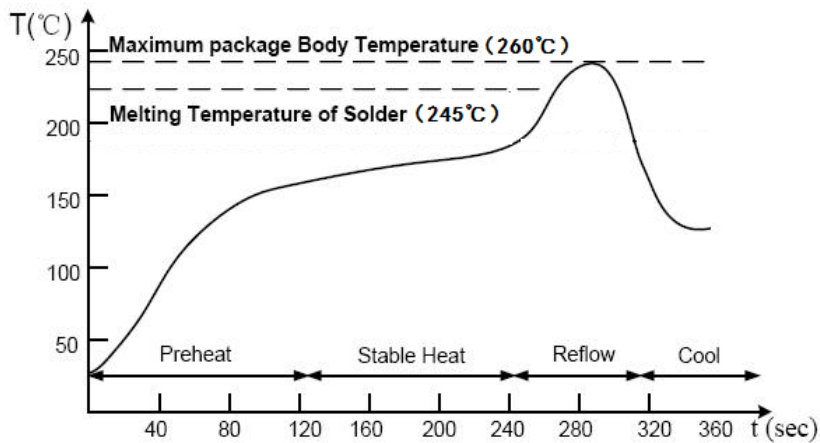


## Marking



Symbol	Explanation
A	Polarity Symbol
B	Product Name, X: 005,01.....10

## Suggested Soldering Temperature Profile



### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## Package Information

### Tube Package

Package	Tube (mm)	Q'TY/Tube (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
GBU	478*41.4*6.5	0.02	495*130*70	0.6	510*375*165	3

### Bulk Package

Package	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
GBU	252*202*40	0.5	460*245*165	3