

## **GBU6005G THRU GBU610G**

Single Phase 6.0 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

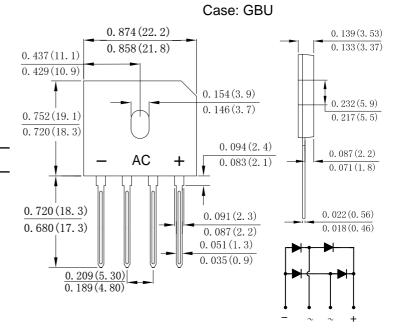
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

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%.

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TYPE NUMBER	SYMBOL	GBU 6005G	GBU 601G	GBU 602G	GBU 604G	GBU 606G	GBU 608G	GBU 610G	UNITS
Peak Repetitive Reverse Voltage	Vrrm								
Working Peak Reverse Voltage	VRWM	50	100	200	400	600	800	1000	V
DC Blocking Voltage	VDC	1							
RMS Reverse Voltage	VRMS	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@Tc=90°C		6.0							Α
Non-Repetitive Peak Forward Surge Current @TJ=25℃ 8.3ms Single half sine-wave superimposed @TJ=125℃ on rated load (JEDEC Method)		160 128							Α
Non-Repetitive Peak Forward Surge @Tj=25°C Current 1 ms Single half sine-wave @Tj=125°C superimpose on rated load (JEDEC Method)		320 256					А		
Forward Voltage per element @IF=3 @IF=6	VEM	1.0 1.1							٧
Peak Reverse Current @TJ=25℃ At Rated DC Blocking Voltage TJ=125℃	lr	5.0 200							uA
I <sup>2</sup> t Rating for fusing (t <8.3ms)	l <sup>2</sup> t	106.24			A <sup>2</sup> s				
Dielectric Strength	Vids	2500				V			
The proposed installation torque Max torque	Tor	5.0 8.0					Kgf.cm		
Typical Junction Capacitance (Note 2)	C₁	35						pF	
T. micel The most Desistance	Reja	21							°C/W
Typical Thermal Resistance	Rejc	3.4							
	Rejl	2.1							
Operating and Storage Temperature Range	TJ,TsTG	-55to+150						$^{\circ}$	

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

version:06 1 of 3



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Average Forward Current (A)

IFSM, Peak Forward Surge Current (A)

Instantaneous Reverse Current(uA)

Fig. 1 Forward Current Derating Curve

8

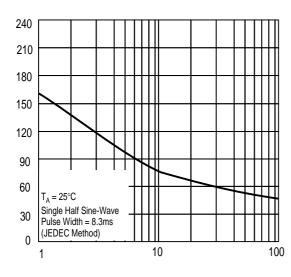
4

2

50

T<sub>C</sub>, Case Temperature(° C)

Fig.3 Maximum Peak Forward Surge Current



Number Of Cycles At 60HZ

Fig.5 Typical Reverse Characteristics

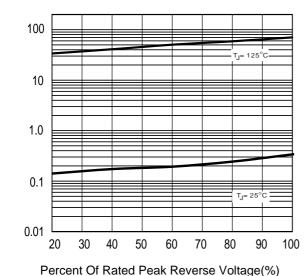


Fig. 2 Typ. Forward Characteristics

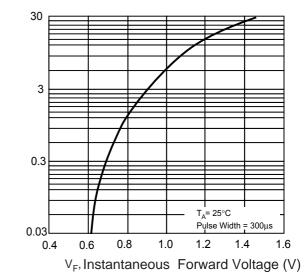
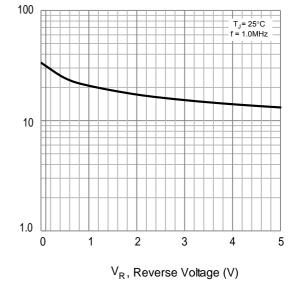


Fig . 4 Typical Junction Capacitance



Instantaneous Forward Current (A)



version:06 2 of 3



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version:06 3 of 3