

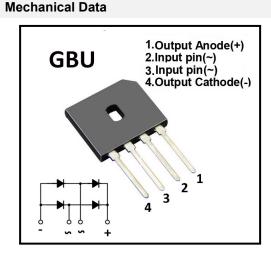
#### GBU8005-GBU810/G

Single Phase 8.0Amp Glass passivated Bridge Rectifiers

#### **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 250°C/10 seconds at terminals
- The G suffix is uses for photoresist chip, otherwise it is a knife scraping chip



#### **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

#### Maximum Ratings And Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	GBU	GBU	GBU	GBU	GBU	GBU	GBU	Unit
		8005	801	802	804	806	808	810	
$V_{RRM}$	repetitive peak reverse voltage	50	100	200	400	600	800	1000	V
$V_{RMS}$	RMS voltage	35	70	140	280	420	560	700	V
$V_{DC}$	DC blocking voltage	50	100	200	400	600	800	1000	V
I <sub>AV</sub>	Maximum average forward rectified current	8.0							А
·Av	with heatsink								
I <sub>FSM</sub>	Peak forward surge current, 8.3ms single	175.0						Α	
	half sine-wave								
I <sub>t</sub> <sup>2</sup>	$I_t^2$ Rating for fusing (t=8.3ms, $T_A$ =25 $^{\circ}C$ )	127.1				A <sub>S</sub> <sup>2</sup>			
$V_{F}$	Forward Voltage at 8.0A	1.10			V				
	Peak Reverse Current@T <sub>A</sub> =25°C	5.0						uA	
I <sub>R</sub>	at rated DC blocking voltage@ $T_A$ =125°C	500							
CJ	Typical junction capacitance (Note 1)	75			pF				
R <sub>qJA</sub>	Typical thermal resistance	31.0			°C/W				
TJ	Operation Temperature Range	-55 to +150					°C		
T <sub>STG</sub>	Storage Temperature Range	-55 to +150							

Revision: 2022-Jan-1

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

- (2) Mounted on glass epoxy PC board with 1.3 mm<sup>2</sup> solder pad.
- (3) Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.

# BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED





## GBU8005-GBU810/G

Revision: 2022-Jan-1

Single Phase 8.0Amp Glass passivated Bridge Rectifiers

#### **Ratings And Characteristic Curves**

Figure 1: DERATING CURVE OUTPUT RECTIFIED CUR-

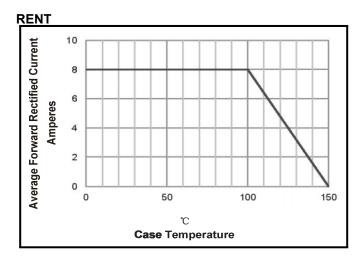


Figure 3:TYPICAL FORWARD VOLTAGE CHARACTER-

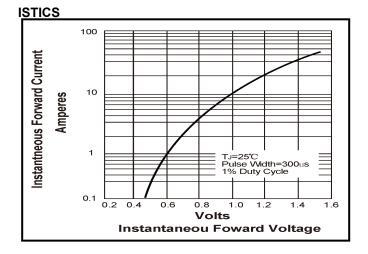


Figure 2: MAXIMUM NON-REPETITIVE PEAK FOR-

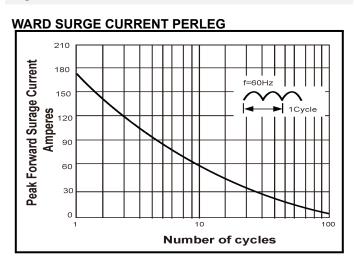
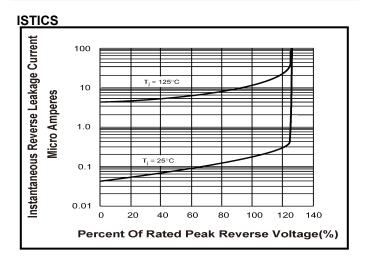


Figure 4:TYPICAL REVERSE LEAKAGE CHARACTER-



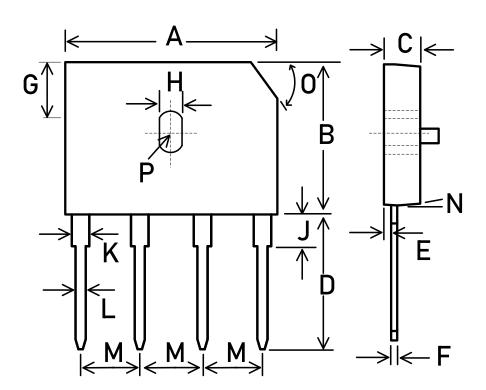


## GBU8005-GBU810/G

Revision: 2022-Jan-1

## Single Phase 8.0Amp Glass passivated Bridge Rectifiers

## **Outline Drawing -GBU**



CVMDOL	MILLIMETER					
SYMBOL	MIN.	MAX.				
Α	21.80	22.30				
В	18.30	18.80				
С	3.30	3.60				
D	17.50	18.00				
E	0.76	1.00				
F	0.45	0.55				
G	7.40	7.90				
Н	3.50	4.10				
ı	1.65	2.16				
J	2.25	2.75				
K	2.00	2.40				
L	1.00	1.30				
М	4.83	5.33				
N	7.0° TYP.					
0	(3.2)x45°					
Р	1.90PADIUS					