



# GBU6005G THRU GBU610G BRIDGE RECTIFIERS

## FEATURES

- UL Recognized File #E469616
- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

## MECHANICAL DATA

Case: Molded plastic, GBU

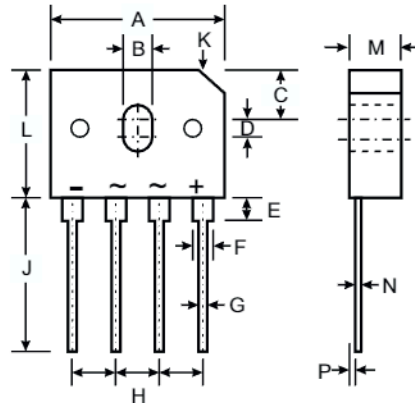
Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.15ounce, 4.0gram

GBU



Dim	Min	Max
A	21.8	22.3
B	3.5	4.1
C	7.4	7.9
D	1.65	2.16
E	2.25	2.75
F	2.05	2.3
G	1.02	1.27
H	4.83	5.33
J	17.5	18.0
K	4.2 X 45°	
L	18.3	18.8
M	3.30	3.56
N	0.46	0.56
P	0.76	1.0

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, derate current by 20%.

TYPE NUMBER	SYMBOL	GBU 6005G	GBU 601G	GBU 602G	GBU 604G	GBU 606G	GBU 608G	GBU 610G	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T <sub>c</sub> =90°C	$I_{F(AV)}$	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							A
Forward Voltage per element @I <sub>F</sub> =3A @I <sub>F</sub> =6A	$V_{FM}$	0.95 1.0							V
Peak Reverse Current @T <sub>A</sub> =25°C At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	$I_R$	5.0 500							uA
I <sup>2</sup> t Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	93							A <sup>2</sup> s
Typical Junction Capacitance per leg (Note 2)	C <sub>J</sub>	65							pF
Typical Thermal Resistance per leg (Note 3)	R <sub>θJA</sub>	31							°C/W
	R <sub>θJL</sub>	10.9							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55to+150							°C

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.

3. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.



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

