



# GBU6005 THRU GBU610

## 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

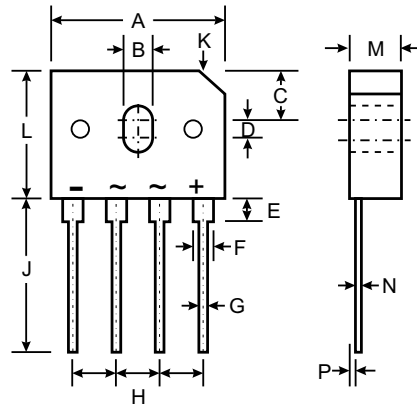
Epoxy: UL 94V-O rate flame retardant

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 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 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_c=90^\circ C$	$I_{F(AV)}$	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120							A
Forward Voltage per element @ $I_F=3A$ @ $I_F=6A$	$V_{FM}$	1.0 1.1							V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0 500							$\mu A$
$I^2t$ Rating for fusing ( $t < 8.3ms$ )	$I^2t$	59.7							$A^2s$
Typical Junction Capacitance per leg (Note 2)	$C_J$	65							pF
Typical Thermal Resistance per leg (Note 3)	$R_{\theta JA}$	31							$^\circ C/W$
	$R_{\theta JL}$	7.6							
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150							$^\circ C$

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)

