

■ **FEATURES**

- UL recognition, file #E230084
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

■ **TYPICAL APPLICATIONS**

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

■ **MECHANICAL DATA**

- **Package:** GBU  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ **MAXIMUM RATINGS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBU6005A	GBU601A	GBU602A	GBU604A	GBU606A	GBU608A	GBU610A
Device marking code			GBU6005A	GBU601A	GBU602A	GBU604A	GBU606A	GBU608A	GBU610A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink $T_c = 125^{\circ}\text{C}$	IO	A	6.0					
	Without heatsink $T_a = 25^{\circ}\text{C}$			2.8					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j = 25^{\circ}\text{C}$	IFSM	A	175						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^{\circ}\text{C}$			350						
Current squared time @1ms ≤ t ≤ 8.3ms $T_j = 25^{\circ}\text{C}$ , Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	127						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						

### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBU6005A	GBU601A	GBU602A	GBU604A	GBU606A	GBU608A	GBU610A	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =3.0A							1.0	
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C							5	
			T <sub>j</sub> =125°C							100	
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C							50	

### ■ THERMAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

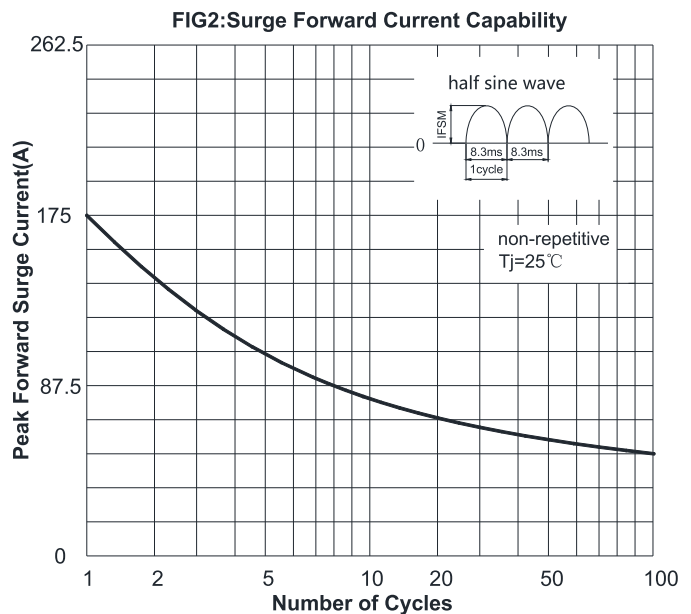
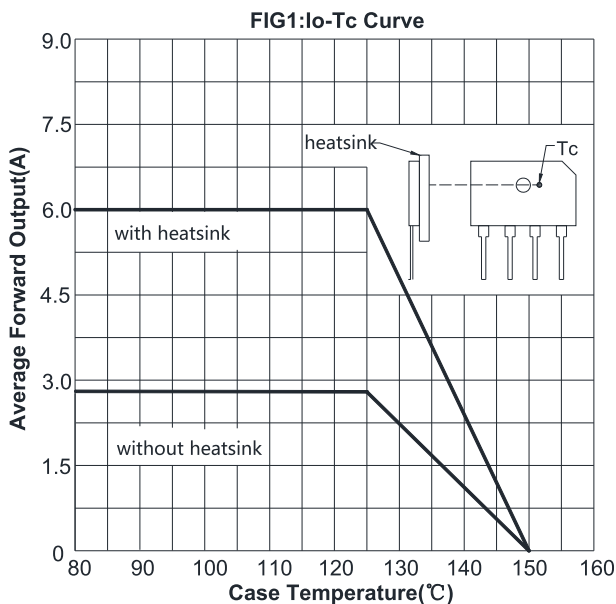
PARAMETER		SYMBOL	UNIT	GBU6005A	GBU601A	GBU602A	GBU604A	GBU606A	GBU608A	GBU610A	
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W							25	
	Between junction and case, With heatsink	R <sub>θJ-C</sub>								2	

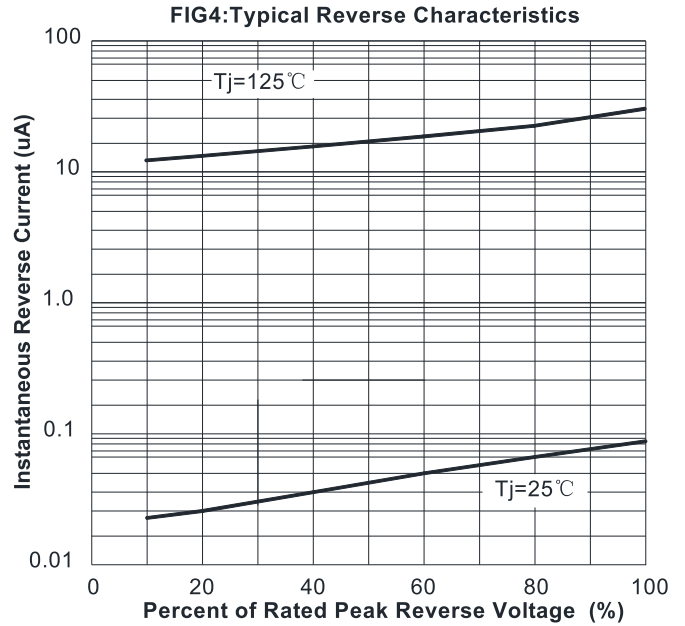
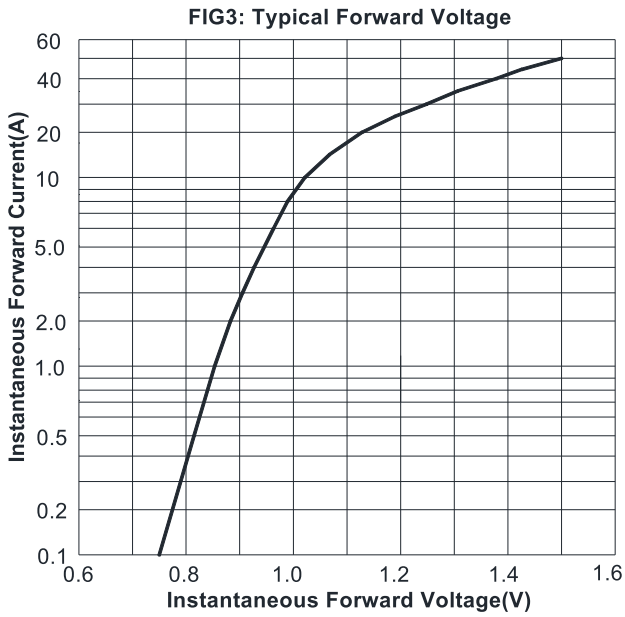
Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

### ■ PACKAGING INFORMATION

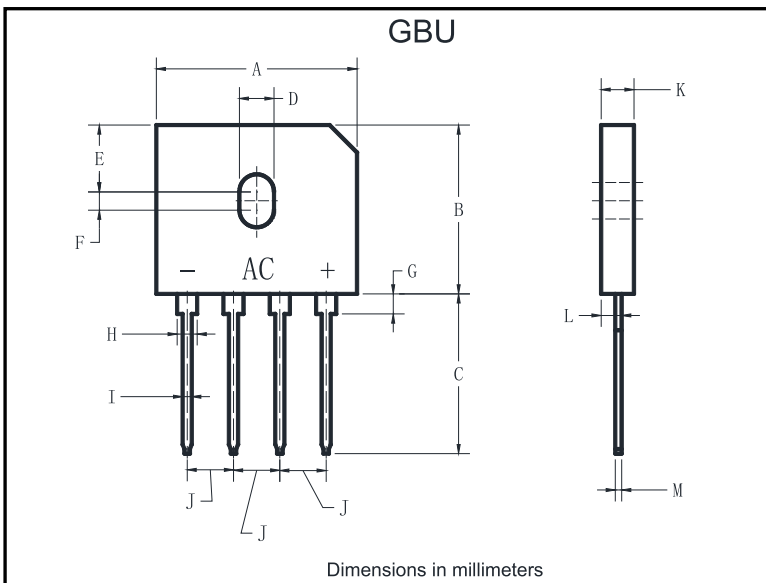
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBU6005A THRU GBU610A	B1	Approximate 3.96	20	1000	2000	TUBE

### ■ CHARACTERISTICS (TYPICAL)





■ **OUTLINE DIMENSIONS**



<b>GBU</b>		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	17.50	18.00
D	3.50	4.10
E	7.40	7.90
F	1.65	2.16
G	1.91	2.54
H	2.06	2.54
I	1.02	1.27
J	4.83	5.33
K	3.30	3.56
L	2.40	2.66
M	0.46	0.56