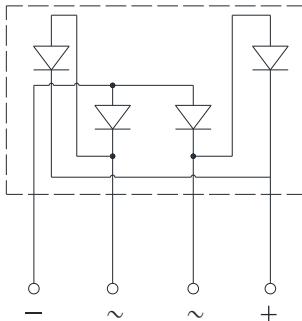
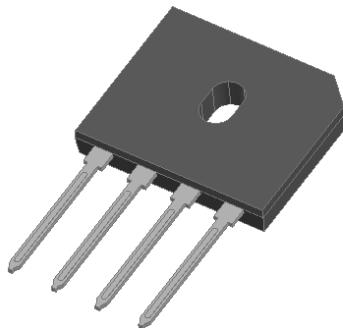




## Bridge Rectifiers



### 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBU1512	GBU1513
Device marking code			GBU1512	GBU1513
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	1200	1300
Maximum RMS Voltage	V <sub>RMS</sub>	V	840	910
Maximum DC blocking Voltage	V <sub>DC</sub>	V	1200	1300
Average rectified output current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =100°C Without heatsink T <sub>a</sub> =25°C	IO A	15.0	
			3.2	
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	200	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			400	
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	166	
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	T <sub>or</sub>	kg·cm	8	



# GBU1512 THRU GBU1513

## ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBU1512	GBU1513
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=7.5A		1.0
Maximum DC reverse current at rated DC blocking voltage per diode	IR	$\mu$ A	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		62

## ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

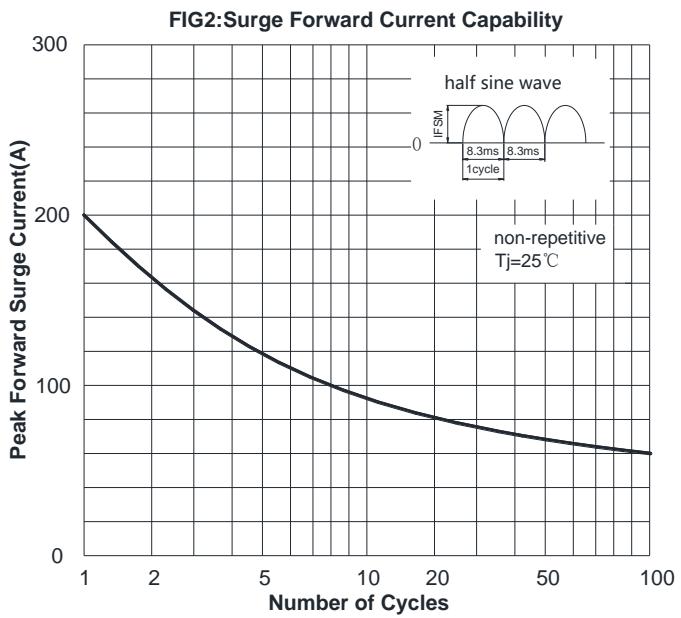
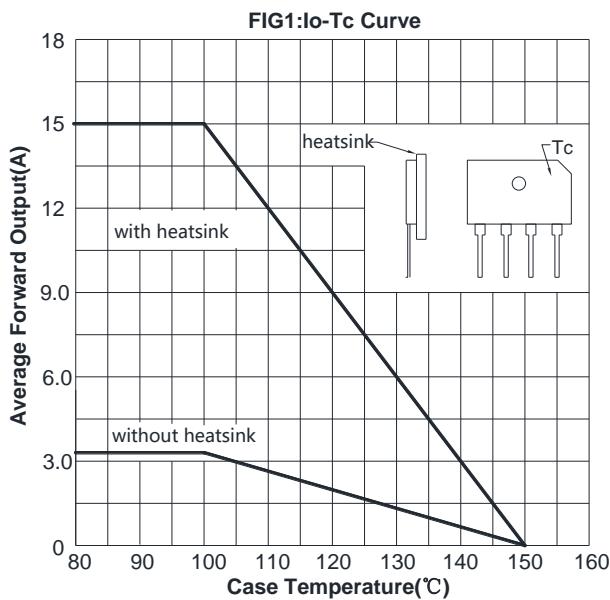
PARAMETER		SYMBOL	UNIT	GBU1512	GBU1513
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W		25.0
	Between junction and case, With heatsink	R <sub>θJ-C</sub>			1.8

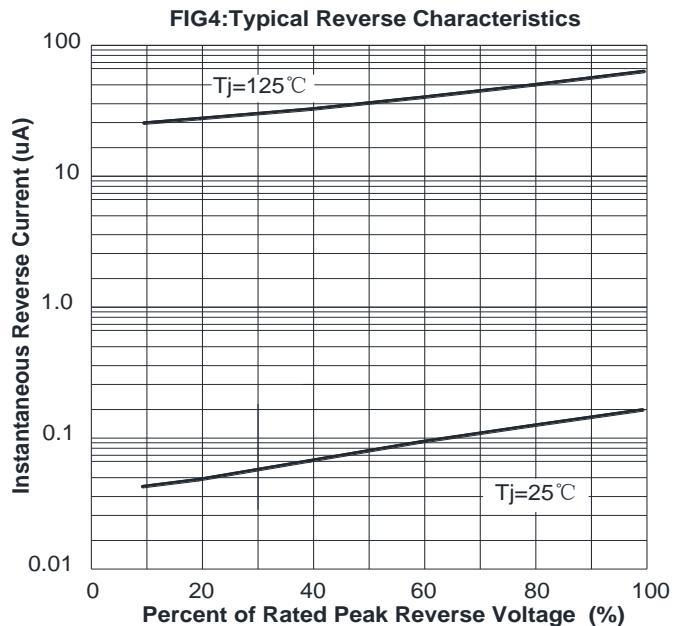
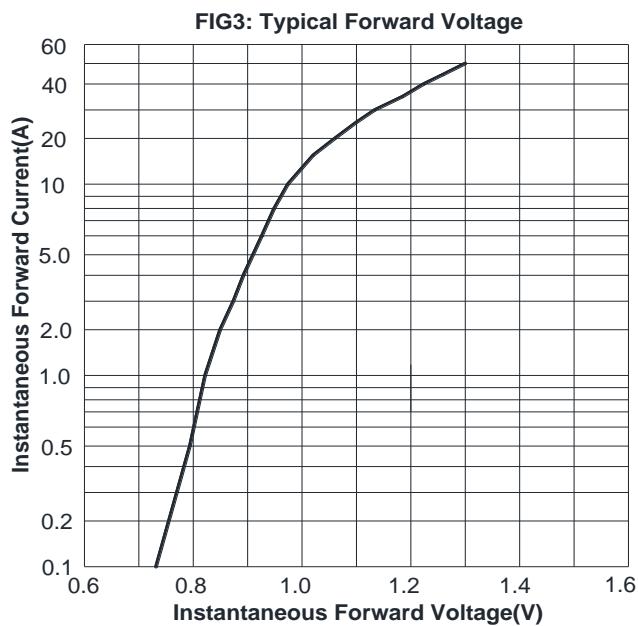
Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

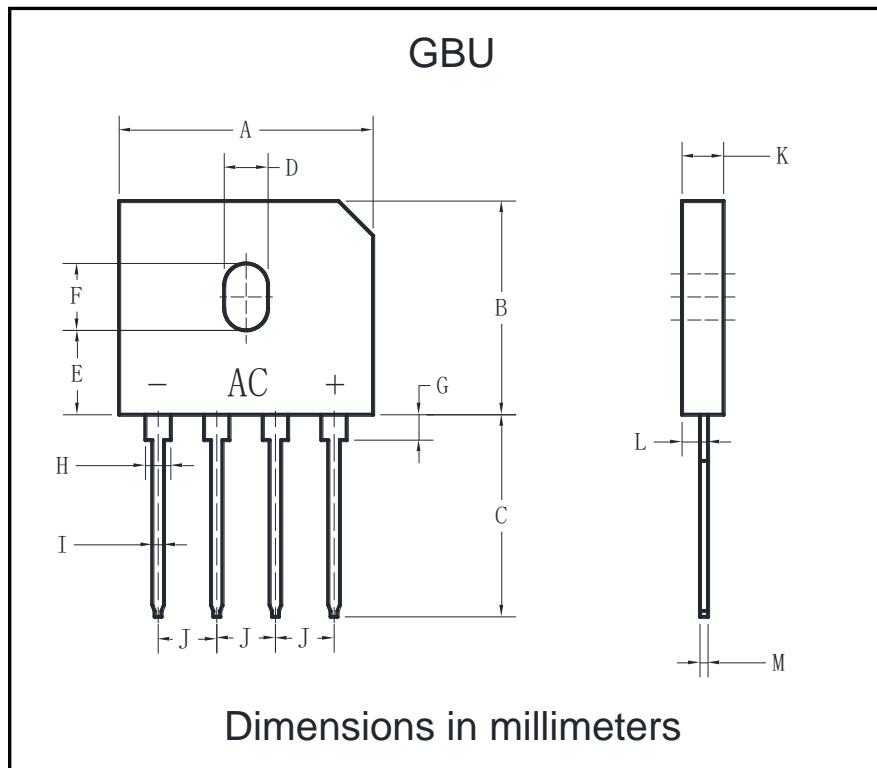
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBU1512 THRU GBU1513	B1	Approximate 3.97	20	1000	2000	TUBE

## ■ Characteristics (Typical)





## ■ Outline Dimensions



GBU		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	17.50	18.00
D	3.30	3.90
E	7.10	7.50
F	5.50	5.90
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



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