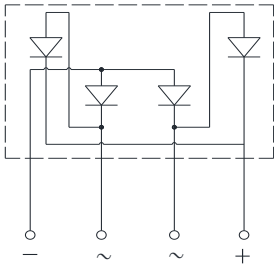
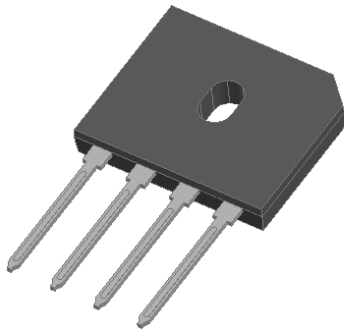


Bridge Rectifiers



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 (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GBU3012A	GBU3013A
Device marking code				GBU3012A	GBU3013A
Maximum Repetitive Peak Reverse Voltage		VRRM	V	1200	1300
Maximum RMS Voltage		VRMS	V	840	910
Maximum DC blocking Voltage		VDC	V	1200	1300
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =120°C	IO	A	30.0	
	Without heatsink Ta =25°C			4.0	
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25°C		IFSM	A	400	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C				800	
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode		I²t	A²S	664	
Storage temperature		Tstg	°C	-55 ~ +150	
Junction temperature		Tj	°C	-55 ~ +150	
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2.5	
Mounting torque @Recommend torque: 5kg·cm		Tor	kg·cm	8	



GBU3012A THRU GBU3013A

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBU3012A	GBU3013A
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =15A	1.05	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5	
			T _j =125°C	200	
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	148	

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

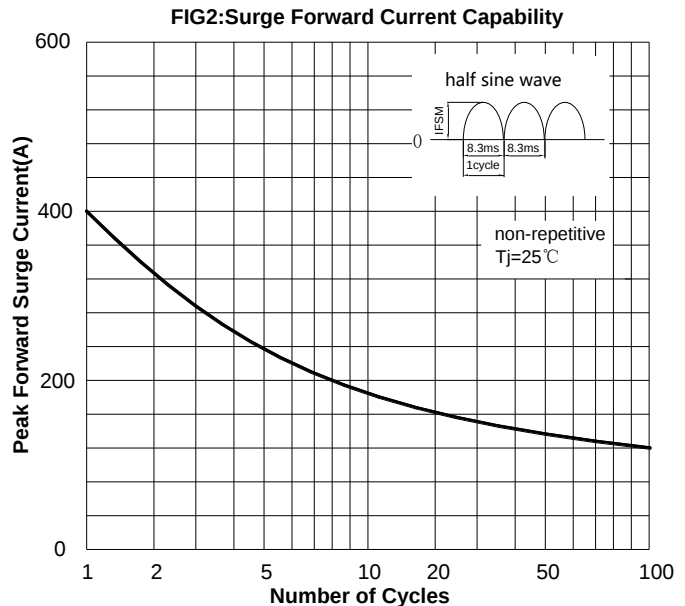
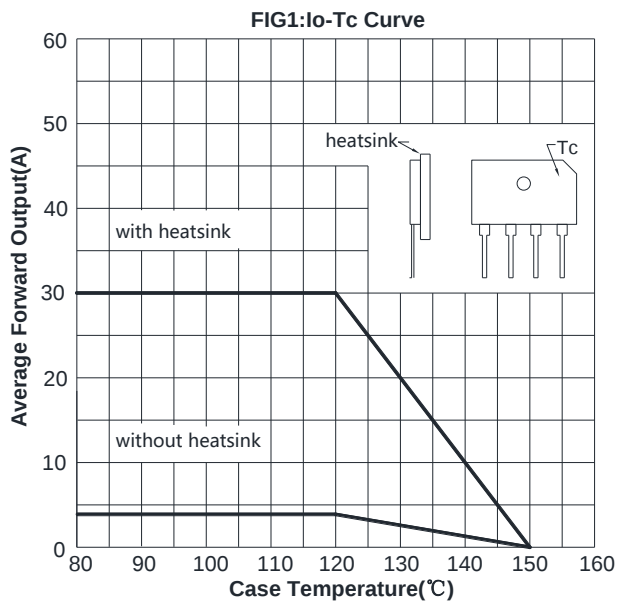
PARAMETER		SYMBOL	UNIT	GBU3012A	GBU3013A
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	22	
	Between junction and case, With heatsink	R _{θJ-C}		0.5	

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

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBU3012A THRU GBU3013A	B1	Approximate 3.95	20	1000	2000	TUBE

■ Characteristics (Typical)





GBU3012A THRU GBU3013A

FIG3: Typical Forward Voltage

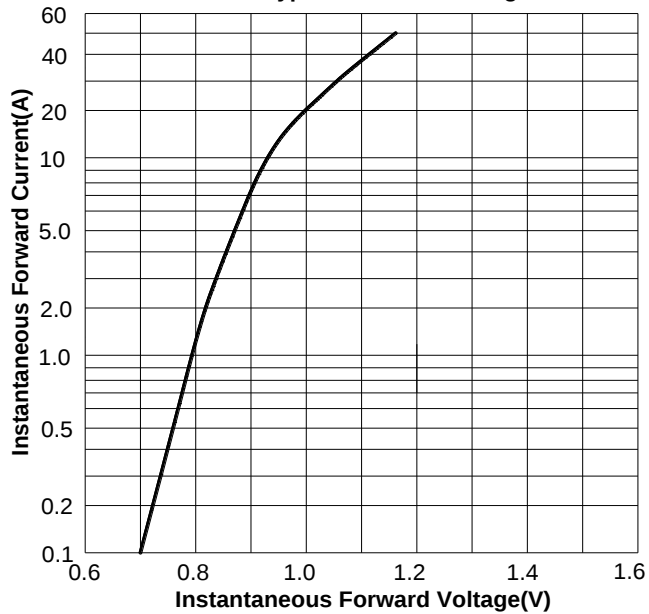
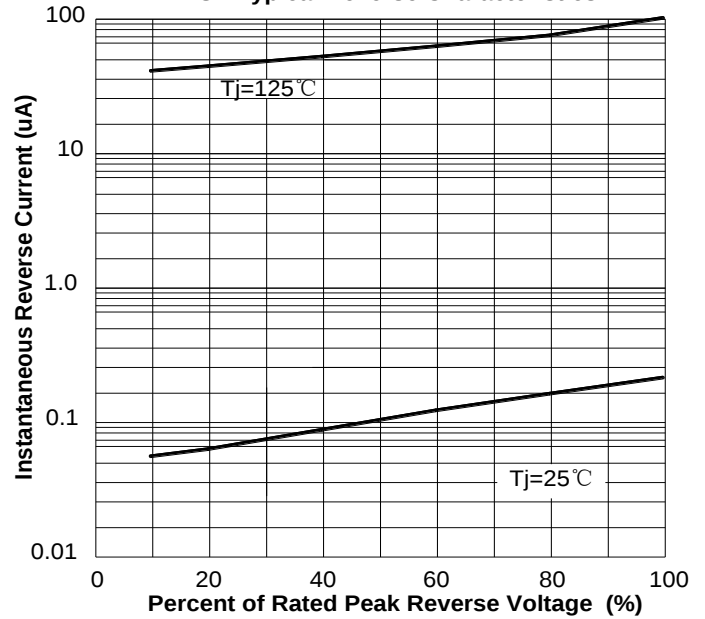
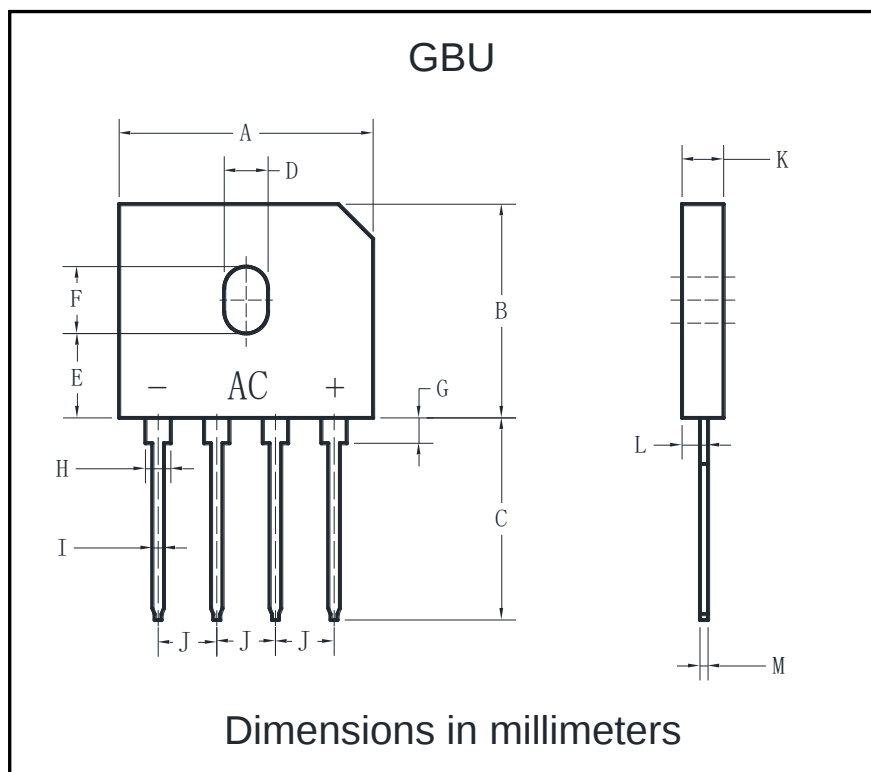


FIG4: Typical Reverse Characteristics



■ 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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