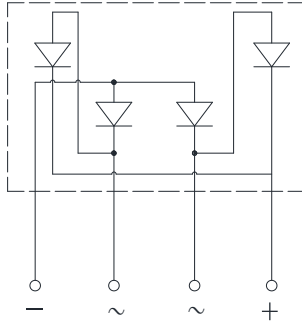
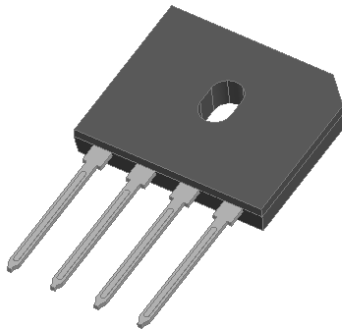


## Bridge Rectifier



### Features

- UL recognition, file #E230084
- 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	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Device marking code			GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Repetitive peak reverse voltage	$V_{RRM}$	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink $T_c=108^\circ\text{C}$	IO	A	4					
	Without heatsink $T_a=25^\circ\text{C}$			2.3					
Surge(non-repetitive)forward current @60HZ half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	135						
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	$\text{A}^2\text{s}$	75						
Storage temperature	$T_{stg}$	$^\circ\text{C}$	-55 ~+150						
Junction temperature	$T_j$	$^\circ\text{C}$	-55 ~+150						
Dielectric strength @ terminals to case, AC 1 minute	$V_{dis}$	KV	2						
Mounting torque @ recommend torque: 5kg · cm	Tor	kg · cm	8						

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_{FM}=2\text{A}$	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM}$	$\mu\text{A}$	$V_{RM}=V_{RRM}$	10						



# GBU4005 THRU GBU410

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

PARAMETER		SYMBOL	UNIT	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	23						
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		5.5						

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBU4005 THRU GBU410	B1	Approximate 3.96	20	1000	2000	TUBE
GBU4005 THRU GBU410	A1	Approximate 3.96	250	250	4000	BOX

## ■ Characteristics (Typical)

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

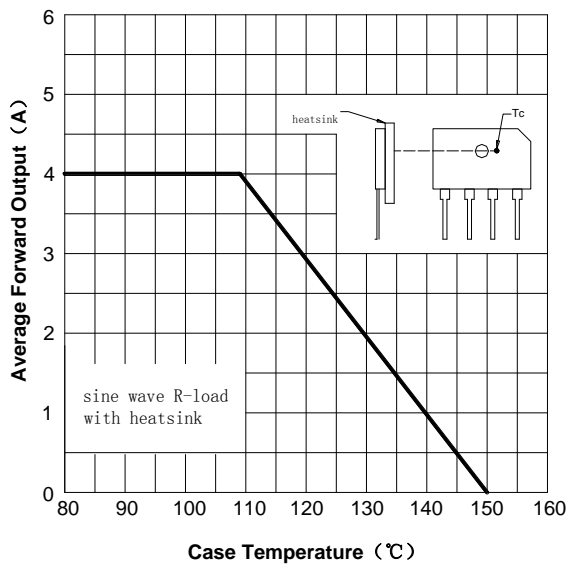


FIG2: Surge Forward Current Capability

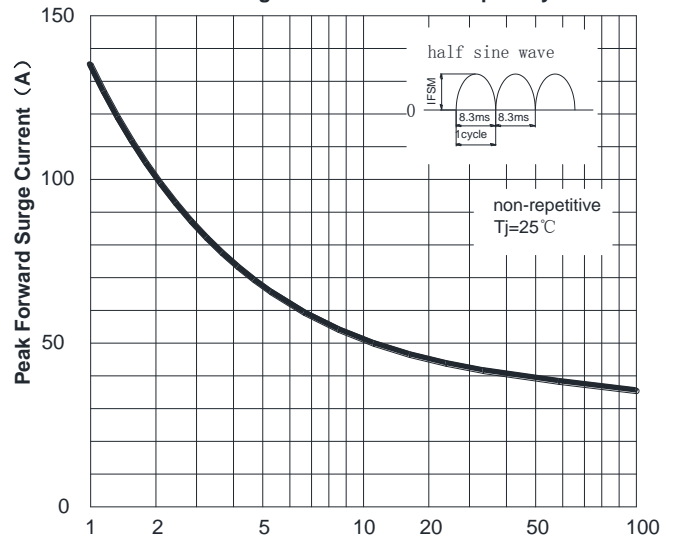


FIG3: Forward Voltage

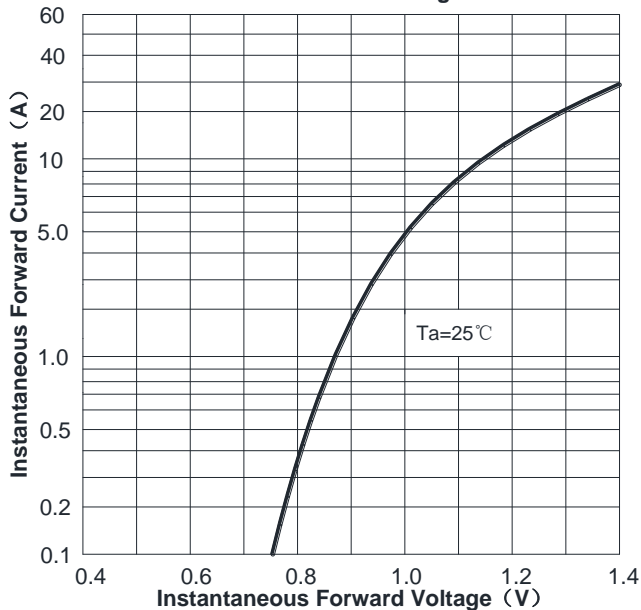
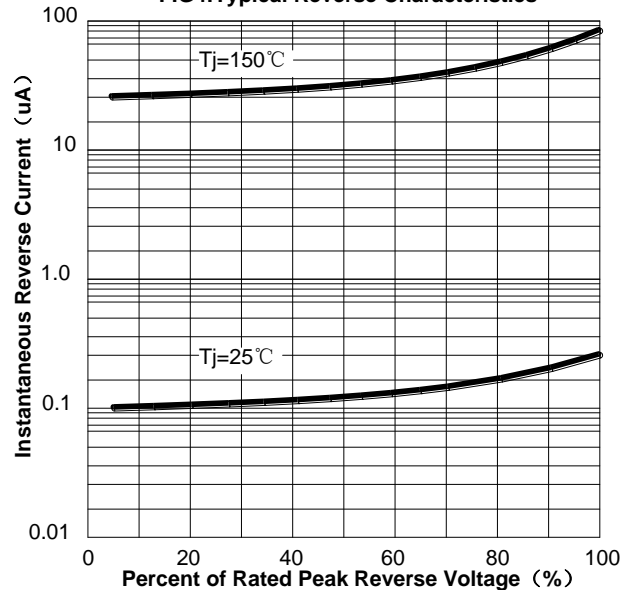


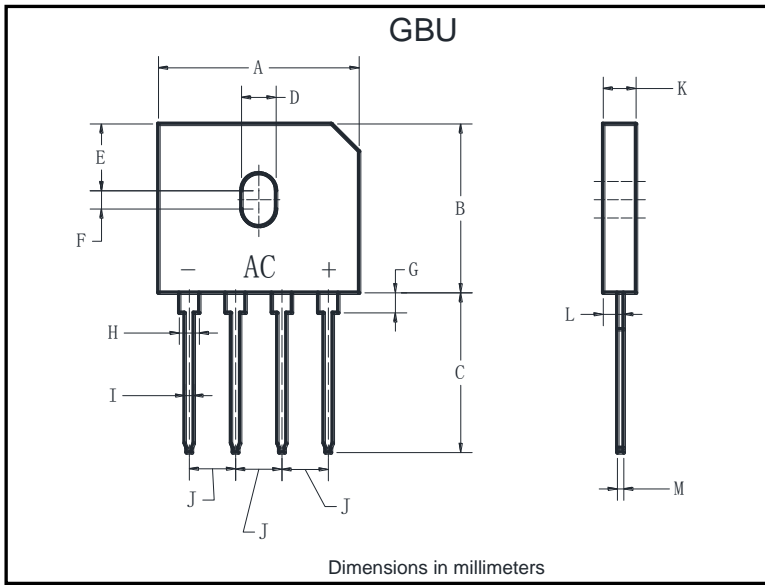
FIG4: Typical Reverse Characteristics





# GBU4005 THRU GBU410

## ■ Outline Dimensions



GBU		
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



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