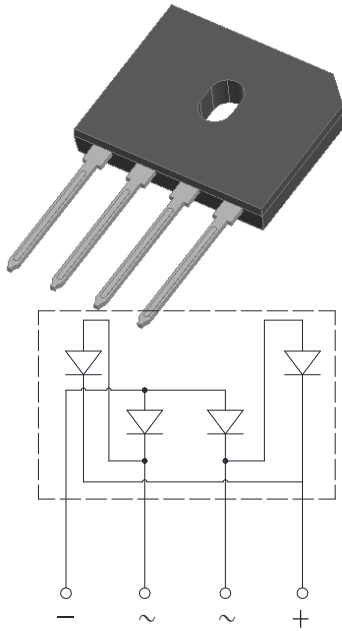


## Bridge Rectifier



### 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<sub>a</sub>=25°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 <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =108°C	I <sub>O</sub>	A	4.0					
	Without heatsink T <sub>a</sub> =25°C			2.3					
Surge (non-repetitive) forward current @60HZ half sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	135						
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	75						
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	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =2.0A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	5						



# GBU4005 THRU GBU410

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

PARAMETER		SYMBOL	UNIT	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410
Thermal Resistance	Betw een junction and ambient, Without heatsink	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	26.0						
	Betw een junction and case, With heatsink	$R_{\theta J-C}$		5.5						

## ■ Ordering Information (Example)

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

## ■ Characteristics (Typical)

FIG1:  $I_o$ - $T_c$  Curve

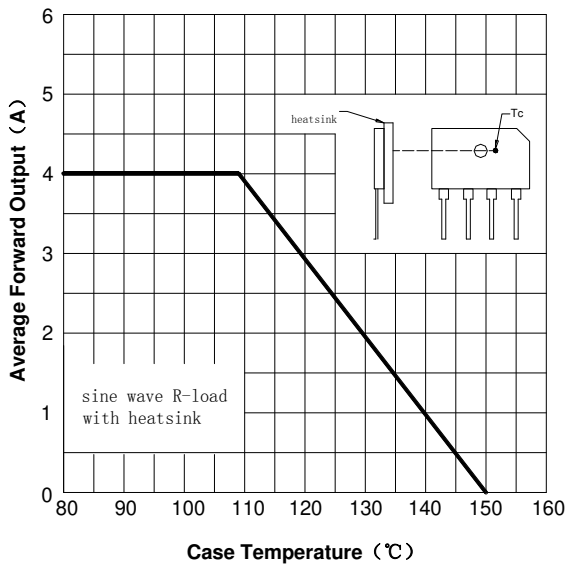


FIG2: Surge Forward Current Capability

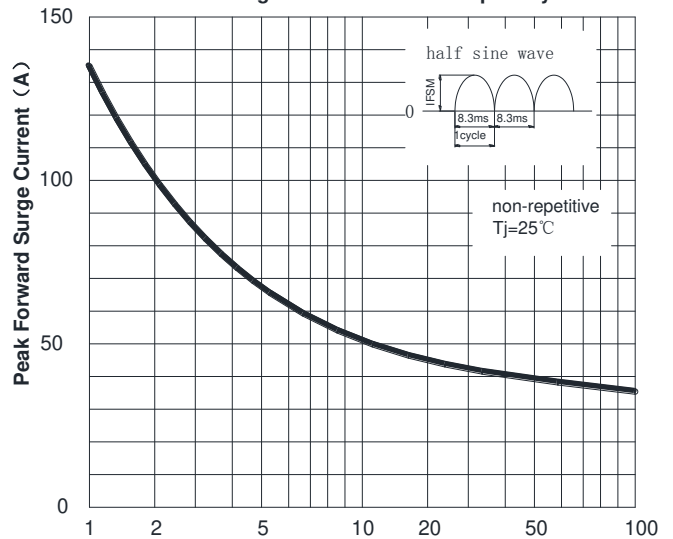


FIG3: Forward Voltage

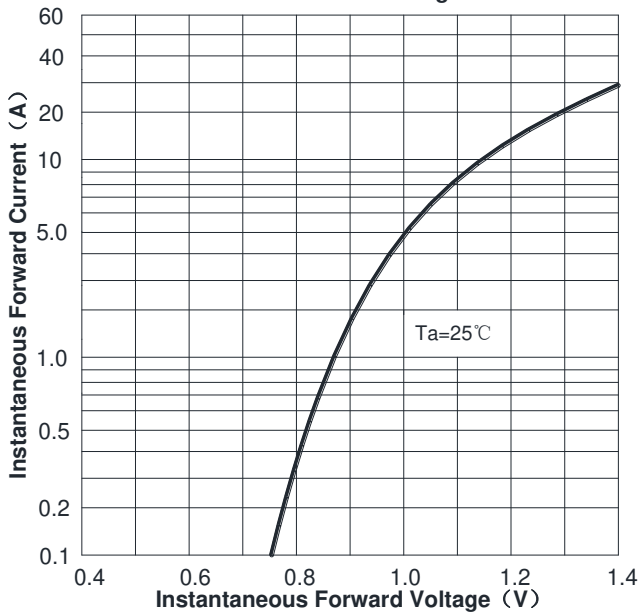
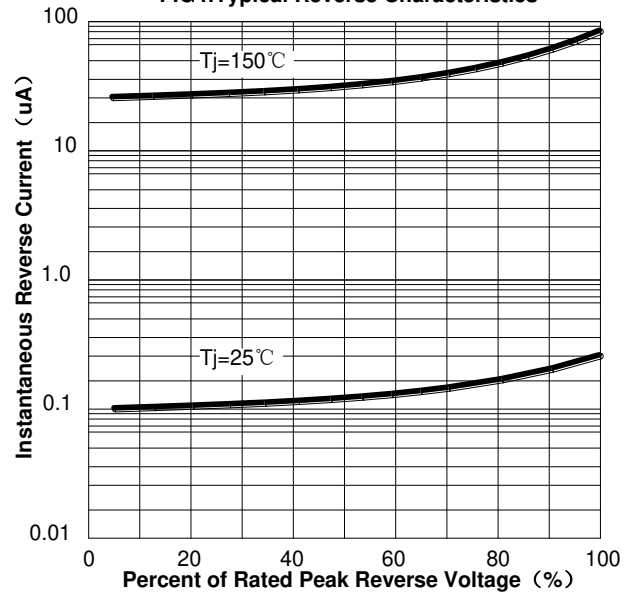


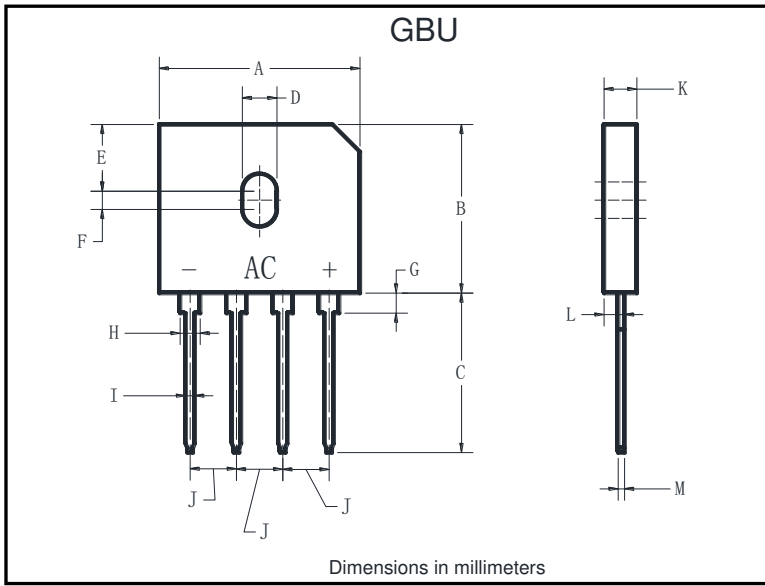
FIG4: Typical Reverse Characteristics





# 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



## GBU4005 THRU GBU410

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