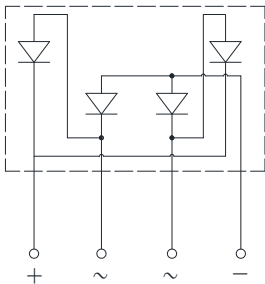
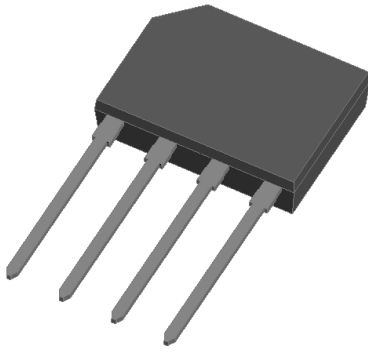


## Bridge Rectifiers



### 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:** GBP  
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	GBP4005	GBP401	GBP402	GBP404	GBP406	GBP408	GBP410
Device marking code			GBP4005	GBP401	GBP402	GBP404	GBP406	GBP408	GBP410
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink $T_c=140^\circ\text{C}$	IO	A	4.0					
	Without heatsink $T_c=70^\circ\text{C}$								
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	110						
Current squared time @1ms $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	A <sup>2</sup> S	50						
Storage temperature	$T_{stg}$	$^\circ\text{C}$	-55 ~+150						
Junction temperature	$T_j$	$^\circ\text{C}$	-55 ~+150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBP4005	GBP401	GBP402	GBP404	GBP406	GBP408	GBP410
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=2.0A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	$\mu\text{A}$	V <sub>RM</sub> =V <sub>RRM</sub>	5						

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

PARAMETER	SYMBOL	UNIT	GBP4005	GBP401	GBP402	GBP404	GBP406	GBP408	GBP410
Thermal Resistance	Between junction and ambient	R <sub>θJ-A</sub>	$^\circ\text{C/W}$	47.0					
	Between junction and lead	R <sub>θJ-L</sub>		10.0					

## Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBP4005 THRU GBP410	B1	1.4	35	2100	4200	TUBE

## Characteristics (Typical)

FIG1:Io-Tc Curve

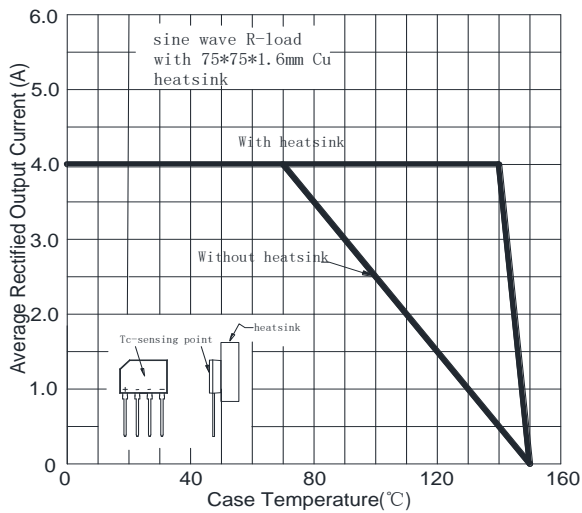


FIG2:Surge Forward Current Capability

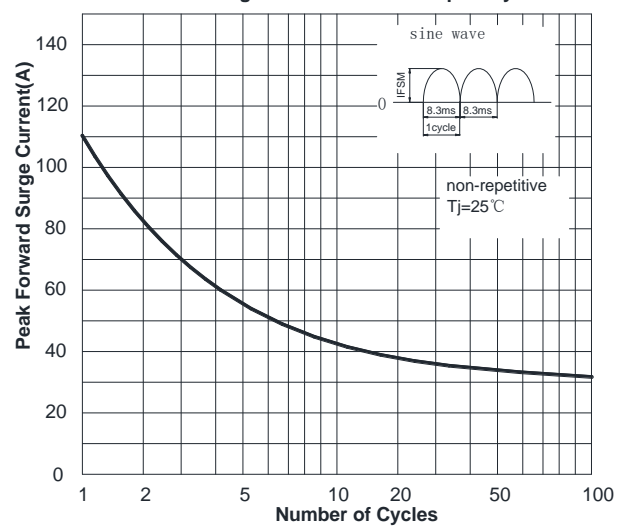


FIG3: Forward Voltage

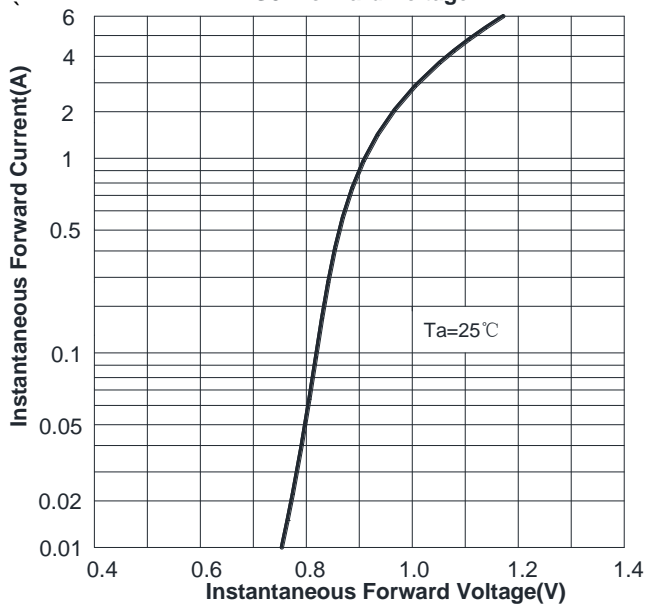
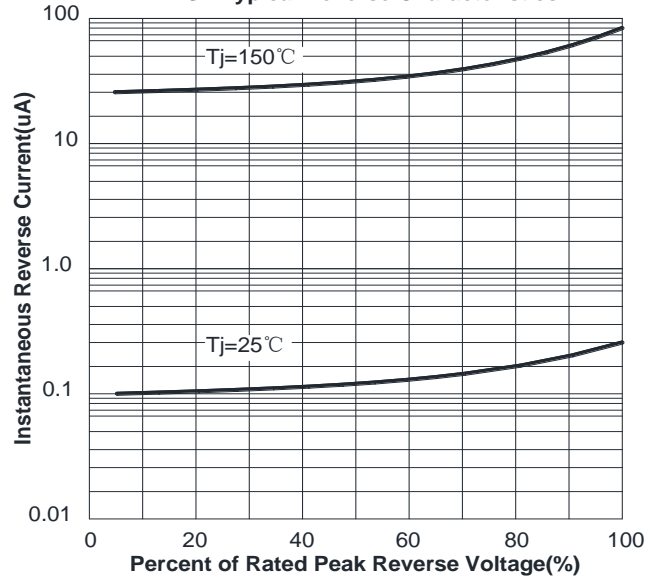
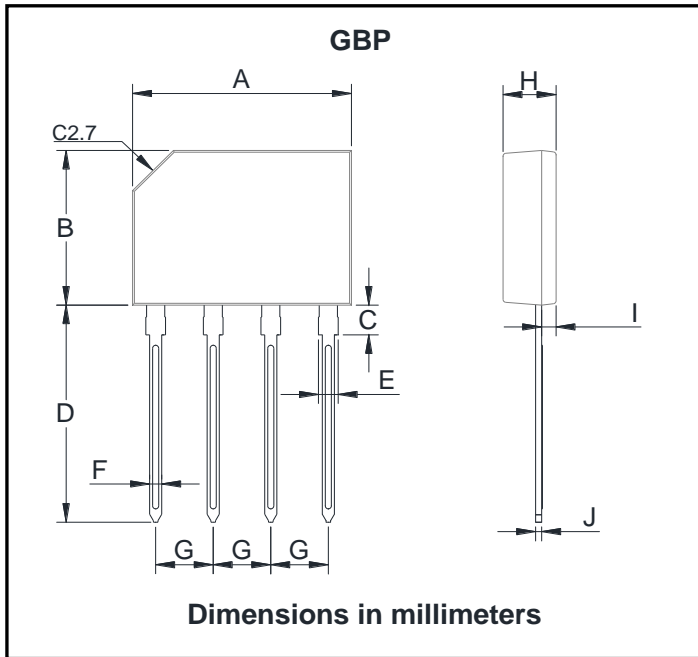


FIG4:Typical Reverse Characteristics



■ Outline Dimensions



GBP		
Dim	Min	Max
A	14.25	14.75
B	10.10	10.60
C	1.80	2.20
D	14.25	14.73
E	1.22	1.42
F	0.76	0.86
G	3.70	3.90
H	3.35	3.65
I	0.80	1.10
J	0.35	0.55