

## 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<sub>a</sub>=25°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 <sub>C</sub> =140°C	IO	A	4.0					
	Without heatsink T <sub>C</sub> =70°C								
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T <sub>J</sub> =25°C	IFSM	A	110						
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	50						
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction temperature	T <sub>j</sub>	°C	-55 ~+150						

## ■ Electrical Characteristics (T<sub>a</sub>=25°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>	µA	V <sub>RM</sub> =VRRM	5						

## ■ Thermal Characteristics (T<sub>a</sub>=25°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>	°C/W	47.0					
	Between junction and lead	R <sub>θJ-L</sub>		10.0					

■ Characteristics (Typical)

FIG1:Io-Tc Curve

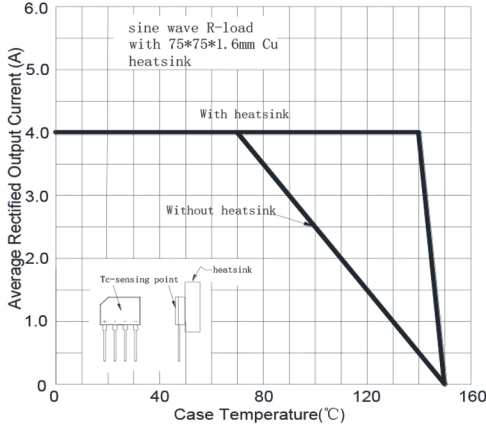


FIG2:Surge Forward Current Capability

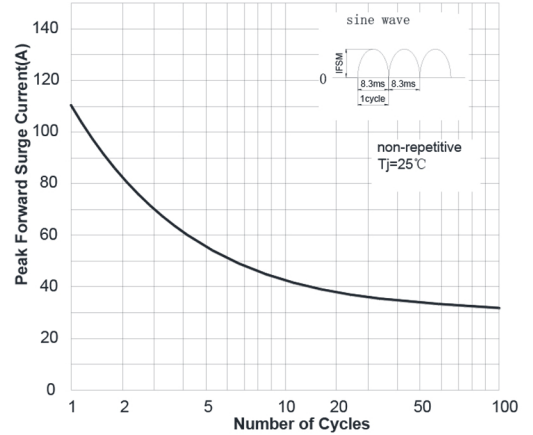


FIG3: Forward Voltage

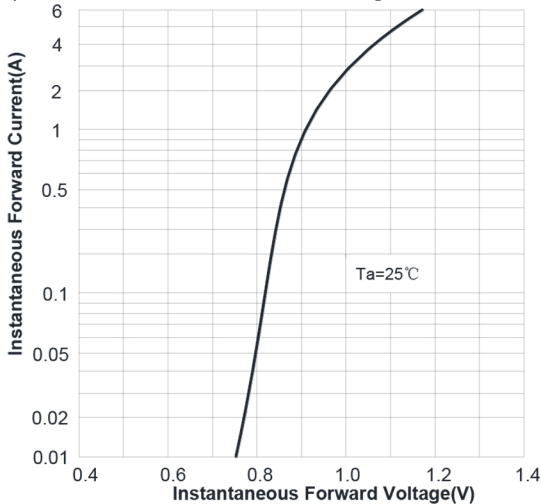


FIG4:Typical Reverse Characteristics

