

### ■ 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:** 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
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T <sub>C</sub> =110°C	I <sub>O</sub>	A	4.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	110						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			220						
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						
Dielectric strength @ terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2						
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	I <sub>FM</sub> =2.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5						
			T <sub>j</sub> =125°C	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	35						

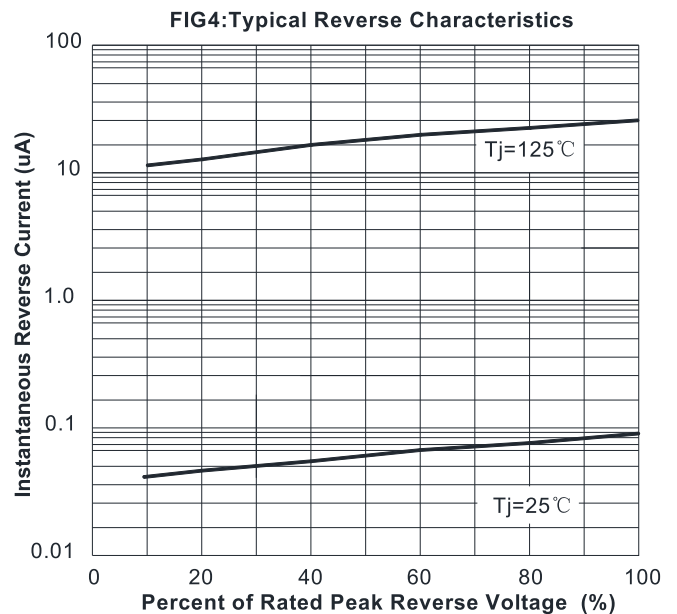
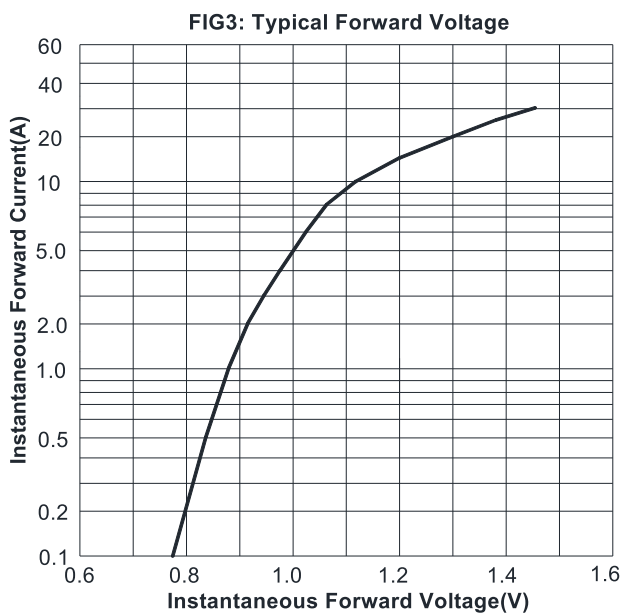
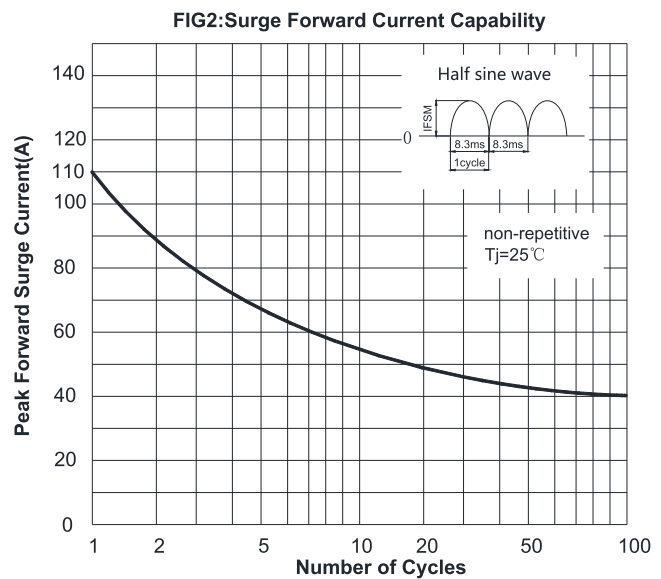
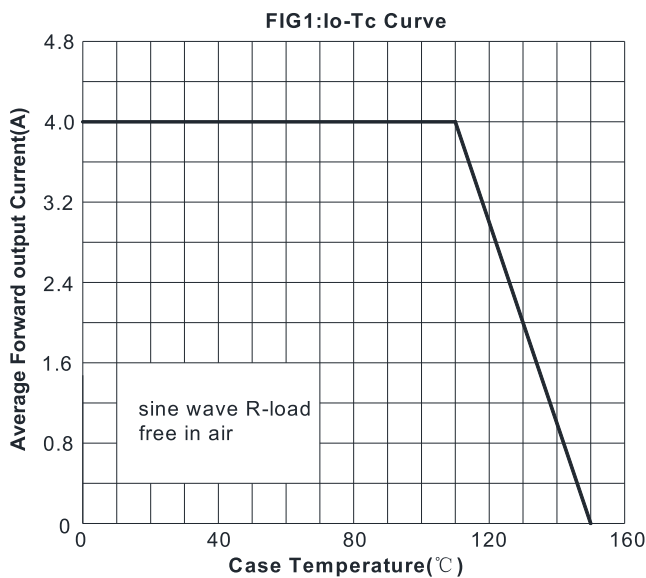
■ **THERMAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GBP4005	GBP401	GBP402	GBP404	GBP406	GBP408	GBP410
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	45						
	Between junction and Case	$R_{\theta J-C}$		5						

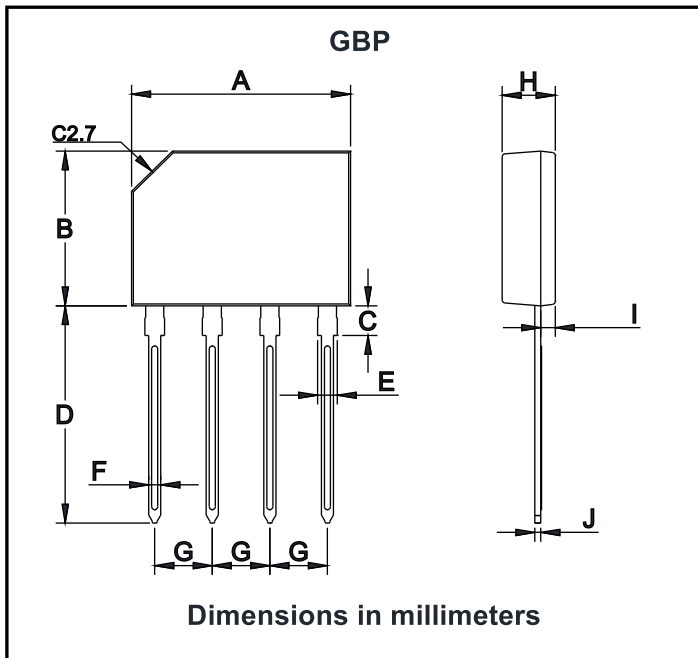
■ **PACKAGING INFORMATION**

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

■ **CHARACTERISTICS (TYPICAL)**



■ **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