



### GBP4005 THRU GBP410

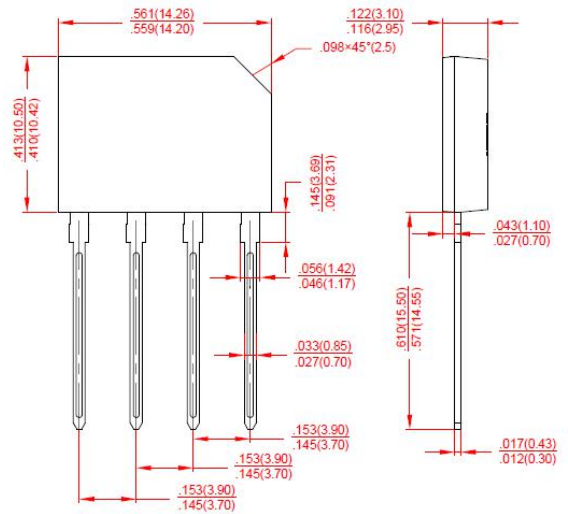
**VOLTAGE RANGE**
**50 to 1000 Volts**
**CURRENT**
**4.0 Ampere**

### Features

- Glass passivated chip junction chip:95mil
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals

### Mechanical Data

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.039 ounce, 1.1gram

**GBP**


### Maximum Ratings and Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

TYPE NUMBER	SYMBOLS	GBP 4005	GBP 401	GBP 402	GBP 404	GBP 406	GBP 408	GBP 410	UNIT
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_C=100^\circ\text{C}$	$I_{(AV)}$	4.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	23							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop Per Bridge element 4.0A	$V_F$	1.0							Volts
Maximum Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$	5							$\mu\text{Amps}$
	$T_A=100^\circ\text{C}$	50							
Typical Thermal Resistance (NOTE 2)	$R_{\theta JC}$	5							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	4							$^\circ\text{C}/\text{W}$
	$R_{\theta JA}$	39							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)							$^\circ\text{C}$

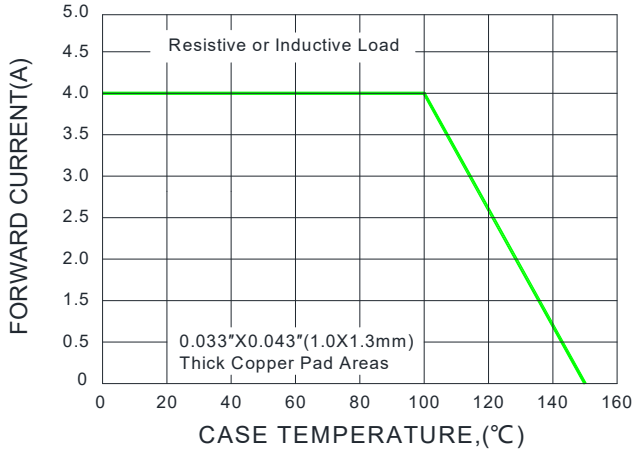
#### Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. with 0.033"x0.043"(1.00mmx1.30mm) copper pads.

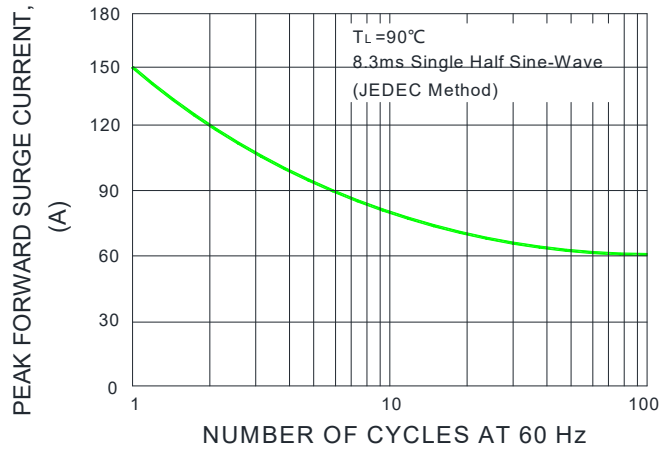


### Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

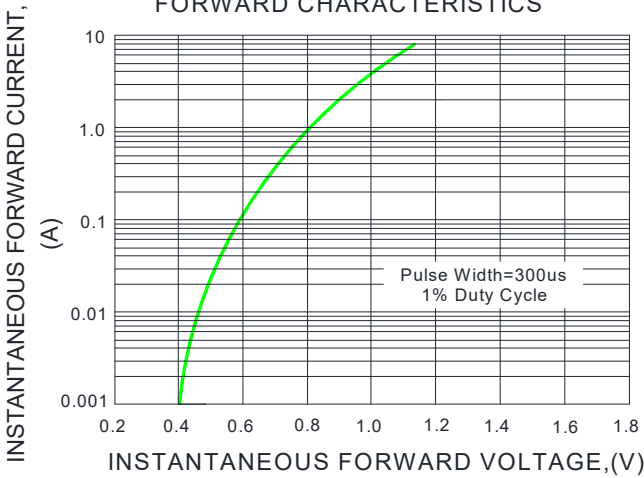
#### FIG.1-FORWARD CURRENT DERATING CURVE



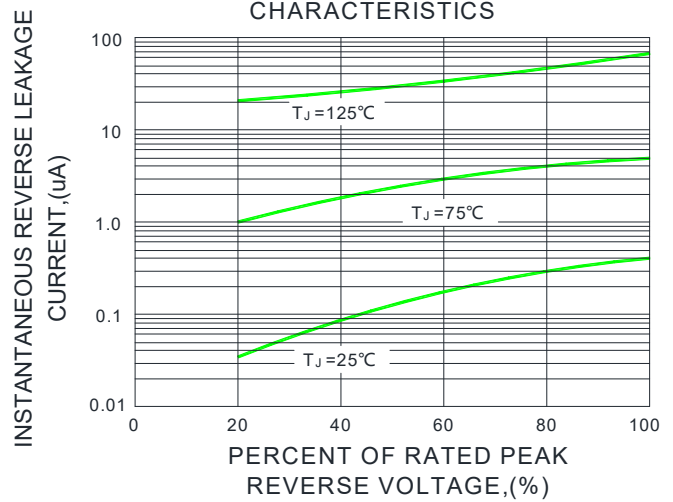
#### FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



#### FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



#### FIG.4-TYPICAL REVERSE CHARACTERISTICS



#### FIG.5-TYPICAL JUNCTION CAPACITANCE

