

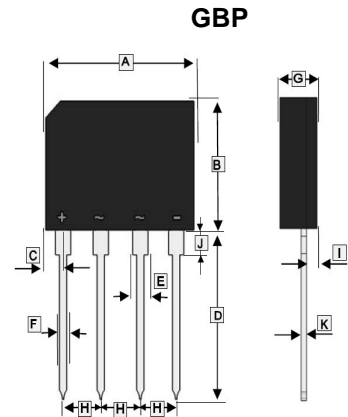
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- $I_o$  : 4A
- $V_{RRM}$  : 50~1000V
- Glass passivated chip
- High surge forward current capability

## APPLICATIONS

- General purpose 1 phase Bridge rectifier applications



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.25	14.75	G	3.35	3.65
B	10.1	10.6	H	3.7	3.9
C	1.23	1.83	I	0.8	1.1
D	14.25	14.73	J	1.8	2.2
E	1.22	1.42	K	0.35	0.55
F	0.76	0.86			

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

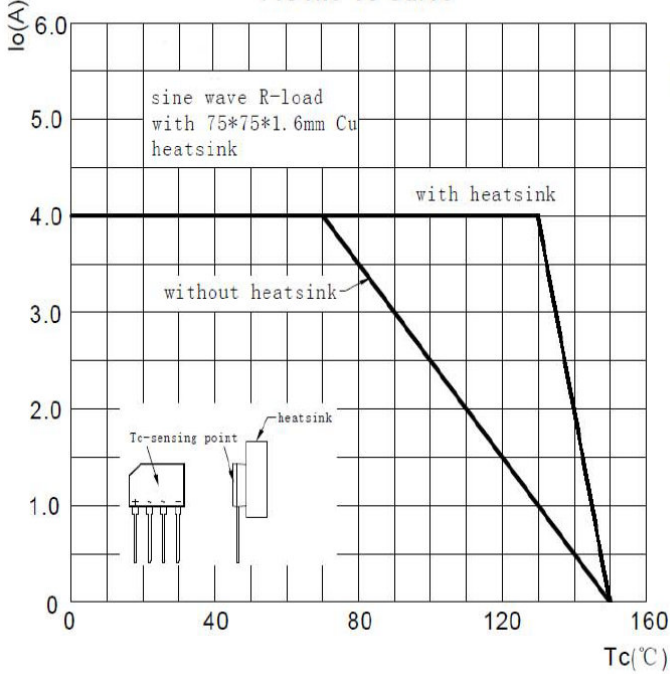
Parameter	Symbol	Part Number								Unit
		GBP 4005	GBP 401	GBP 402	GBP 404	GBP 406	GBP 408	GBP 410		
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000		V
Average Rectified Output Current@60Hz sine wave, R-load	Without heatsink $T_C=70^\circ\text{C}$	4								A
	With heatsink $T_C=130^\circ\text{C}$									
Surge (Non-repetitive) Forward Current@ 60Hz sine wave, 1 cycle, $T_J=25^\circ\text{C}$	$I_{FSM}$	110								A
Current Squared Time <sup>1</sup>	$I^2t$	50								A <sup>2</sup> S
Peak Forward Voltage@ $I_{FM}=2\text{A}$ , pulse measurement, rating of per diode	$V_{FM}$	1.05								V
Peak Reverse Current@ $V_{RM}=V_{RRM}$ , Pulse measurement, rating of per diode	$I_{RRM}$	10								$\mu\text{A}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	47								$^\circ\text{C} / \text{W}$
Thermal Resistance from Junction to Case	$R_{\theta JC}$	10								$^\circ\text{C} / \text{W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~150								$^\circ\text{C}$

Notes :

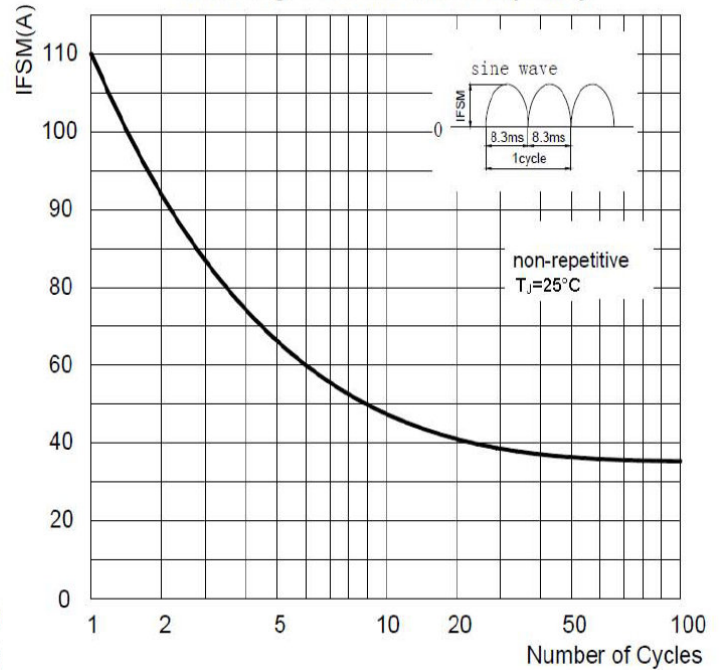
1.  $1\text{ms} \leq t < 8.3\text{ms}$ ,  $T_J=25^\circ\text{C}$ , rating of per diode.

**RATINGS AND CHARACTERISTIC CURVES**

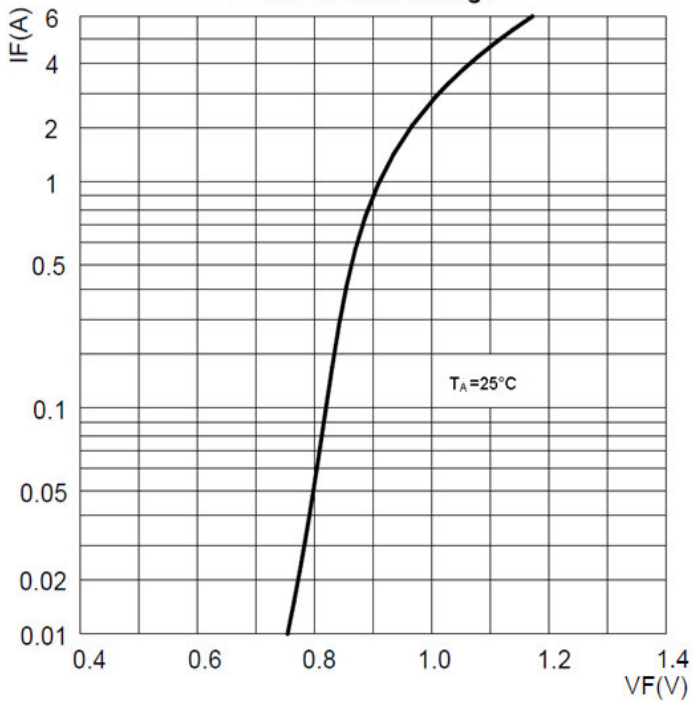
**FIG1: I<sub>o</sub>-T<sub>c</sub> Curve**



**FIG2: Surge Forward Current Capability**



**FIG3: Forward Voltage**



**FIG4: Typical Reverse Characteristics**

