



# DATA SHEET

## GBP300~GBP3010

**IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**  
**VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes**

**GBP**

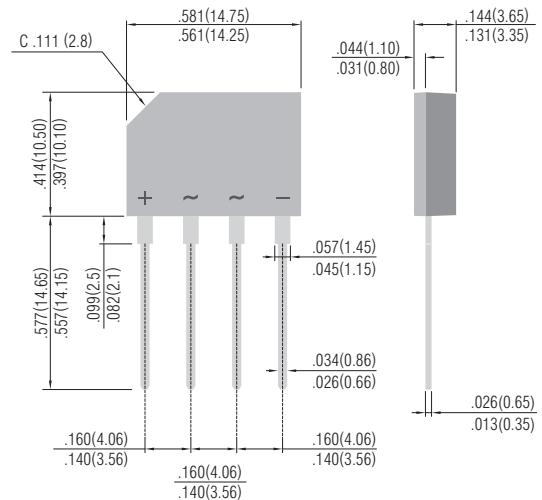
Unit: inch ( mm )

### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating : 70 Amperes peak

### MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-202, Method 208  
Mounting position: Any  
Weight: 0.06 ounce, 1.7 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.  
For Capacitive load derate current by 20%.

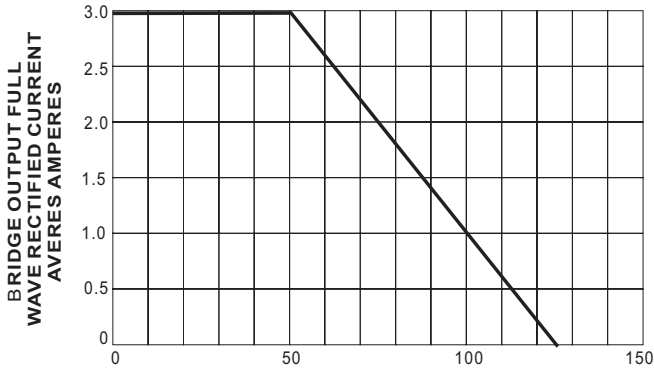
	GBP300	GBP301	GBP302	GBP304	GBP306	GBP308	GBP3010	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current at 50°C Ambient.	3.0							A
Peak One Cycle Surge Overload Current	70.0							A
Maximum Instantaneous Forward Voltage Drop per Bridge element at 1.5A dc	1.0							V
Maximum ( Total Bridge) Reverse Leakage at rated $T_A=25^\circ$ CDc Blocking Voltage per element $T_A=100^\circ$ C	5.0							$\mu$ A
I <sup>2</sup> t Rating for fusing ( t<8.35ms)	20.0							A <sup>2</sup> S
Typical junction capacitance per leg (Note 1)	25.0							pF
Typical Thermal Resistance per leg (Note 2) R $\theta$ JA R $\theta$ JL	34.0 15.0							$^\circ$ C / W
Operating Temperature Range, T <sub>J</sub>	-55 to +125							$^\circ$ C
Storage Temperature Range, TSTG	-55 to +150							$^\circ$ C

**NOTES:**

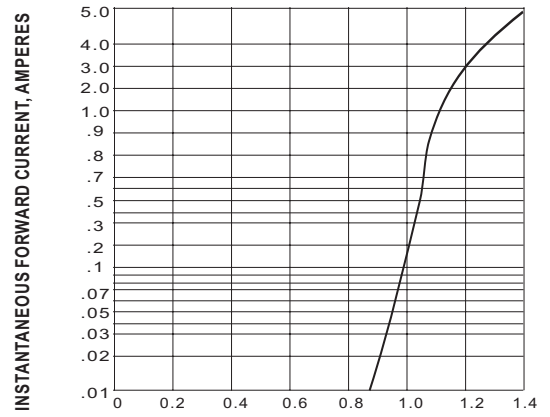
1. Measured at 1.0MHZ and applied reverse voltage of 4.0 volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.47 x 0.47"(12 x 12mm)copper pads.



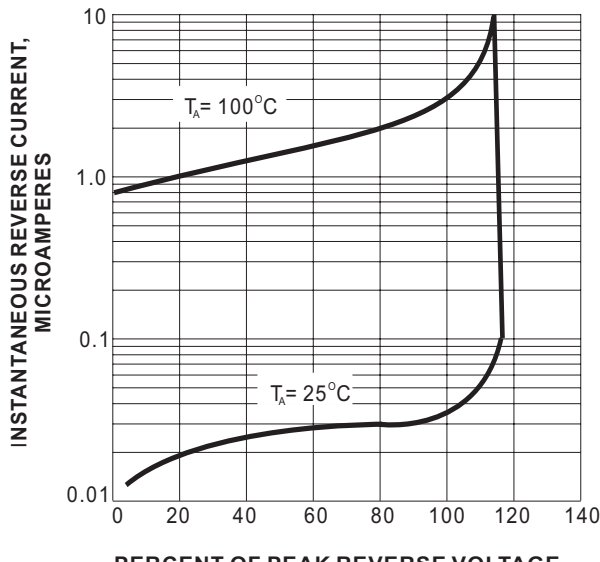
**RATING AND CHARACTERISTIC CURVES**



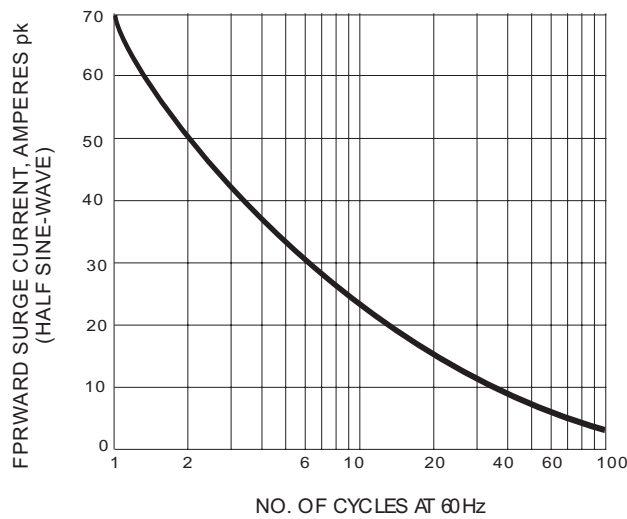
**Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (25°C)**



**Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS**



**Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**