



# DATA SHEET

## GBL400~GBL408

### IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE** 50 to 800 Volts **CURRENT** 4.0 Ampere

**GBL** Unit: inch (mm)

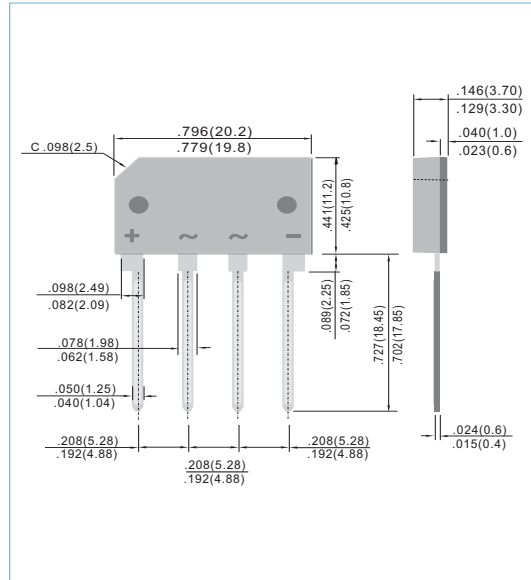
**Recongized File #E228882**

#### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 98.5% Sn above

#### MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-202, Method 208  
Mounting position: Any  
Weight: 0.2 ounce, 5.6 grams.



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

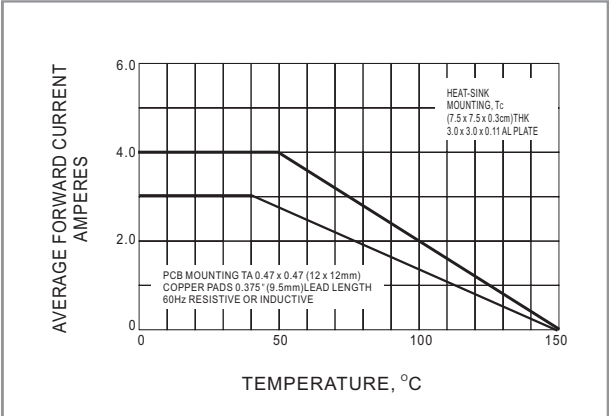
PARAMETER	SYMBOL	GBL400	GBL401	GBL402	GBL404	GBL406	GBL408	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V	
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	V	
Maximum Average Forward Rectified Output Current at T <sub>C</sub> =50 °C at T <sub>J</sub> =40 °C	I <sub>AV</sub>					4.0			A
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>					150			A
I <sup>2</sup> t Rating for fusing (t < 8.3ms)	I <sup>2</sup> t					93			A <sup>2</sup> sec
Maximum Instantaneous Forward Voltage Drop per element at 2.0A	V <sub>F</sub>					1.0			V <sub>pk</sub>
Typical Junction Capacitance per Leg (Note 1)	C <sub>J</sub>					65	25	pF	
Maximum Reverse Leakage Current at Rated @ T <sub>A</sub> =25 °C DC Blocking Voltage @ T <sub>A</sub> =100 °C	I <sub>R</sub>					5.0	500	uA	
Typical Thermal Resistance per leg (Note 2) (Note 3)	R <sub>θJA</sub> R <sub>θJL</sub>					34	15	°C/W	
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>					-55 to +150		°C	

#### NOTES:

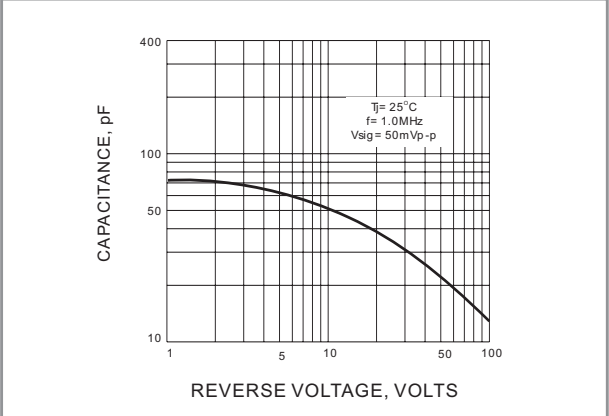
1. Mounted at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375" (9.5mm) lead length and 0.5X0.5" (12X12mm) copper pads.
3. Units Mounted 3.0 X 3.0 X 0.11" thick (7.5 X 7.5 X 0.3 cm) AL plate.



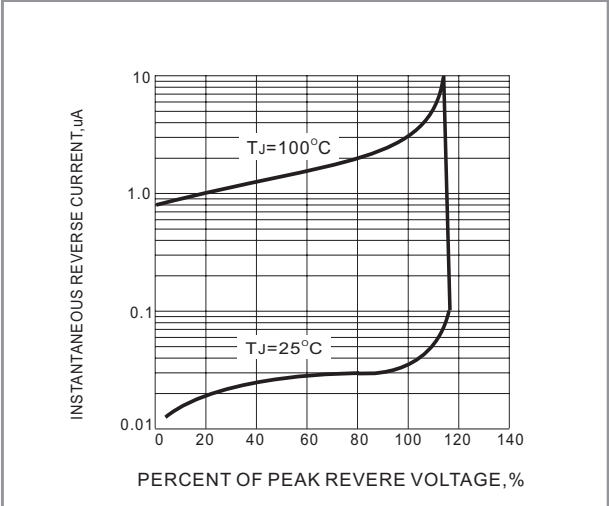
**RATING AND CHARACTERISTIC CURVES**



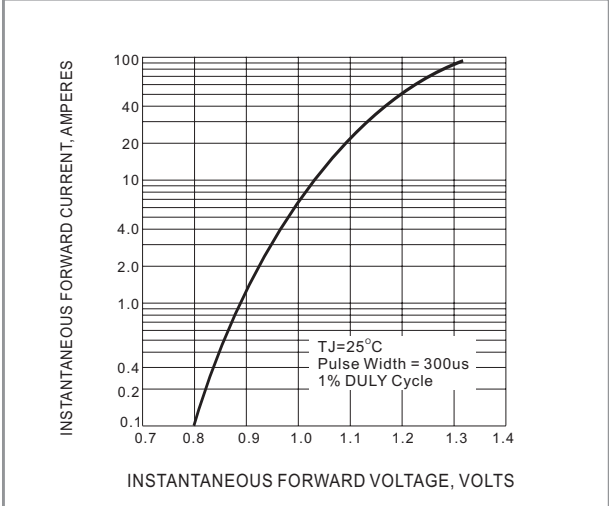
**Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**Fig.5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT**



**Fig.3 - TYPICAL REVERSE CHARACTERISTICS**



**Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT**