



# DATA SHEET

## GBPC12005W~GBPC1208W

### HIGH CURRENT SILICON BRIDGE RECTIFIER

**VOLTAGE - 50 to 800 Volts CURRENT - 12 Amperes**

#### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- The plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- Surge overload ratings to 200 Amperes .

#### MECHANICAL DATA

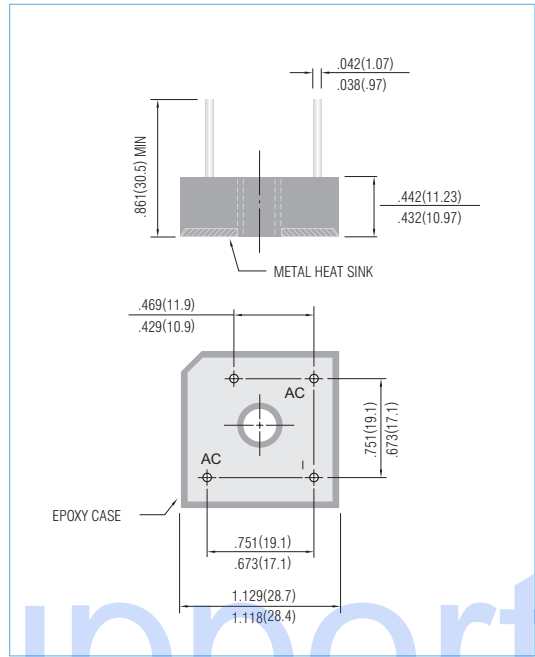
Case: Molded plastic with heatsink integrally mounted in the bridge encapsulation.

Mounting position: Any

Weight: 1 ounce, 30 grams

“ W ” Suffix Designates Wire Leads  
All Models are Available on B( Height)=7.62mm Max. Epoxy Case

GBPC-W Unit: inch ( mm )



#### 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%.

	GBPC 12005W	GBPC 1201W	GBPC 1202W	GBPC 1204W	GBPC 1206W	GBPC 1208W	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Input Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
DC Output Voltage, Resistive load	30	62	124	250	380	505	V
DC Output Voltage, Capacitive load	50	100	200	400	600	800	V
Maximum Average Forward Current For Resistive Load at TC=55°C	12						A
Non-repetitive Peak Forward Surge Current at Rated Load	200						A
Maximum Forward Voltage per Bridge Element at 6.0A Specified Current	1.2						V
Maximum Reverse Leakage Current at Rated @ T <sub>A</sub> =25°C	10.0						μA
Dc Blocking Voltage @ T <sub>A</sub> =100°C	1000						
I <sup>2</sup> t Rating for fusing ( t<8.35ms)	374 / 664						A <sup>2</sup> S
Typical Thermal Resistance per leg (Fig 3) RθJC	2.0						°C / W
Operating Temperature Range, T <sub>J</sub>	-55 to +150						°C
Storage Temperature Range, T <sub>A</sub>	-55 to +150						°C



**RATING AND CHARACTERISTIC CURVES**

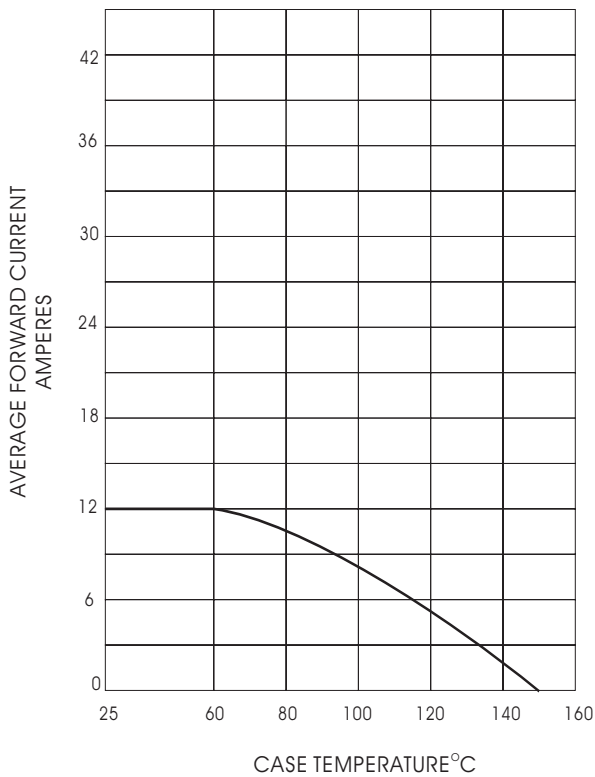


Fig. 1- OUTPUT CURRENT VS. CASE TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  $T_J = 150^\circ\text{C}$

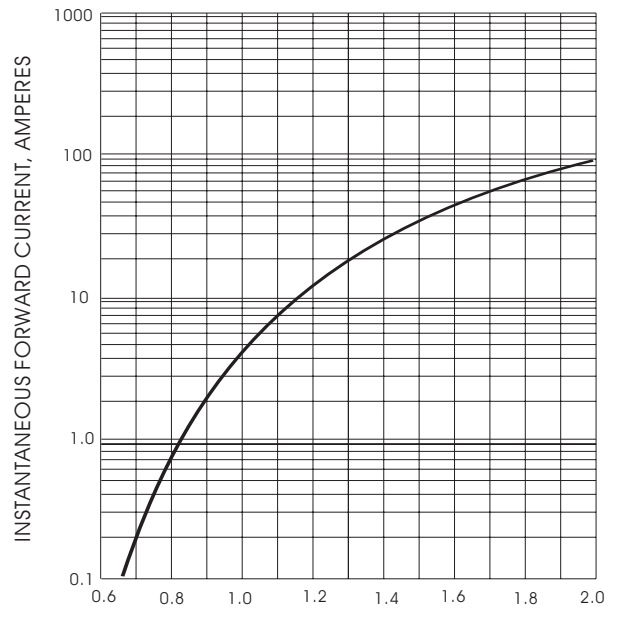


Fig. 2- TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS  
AT  $T_J = 25^\circ\text{C}$

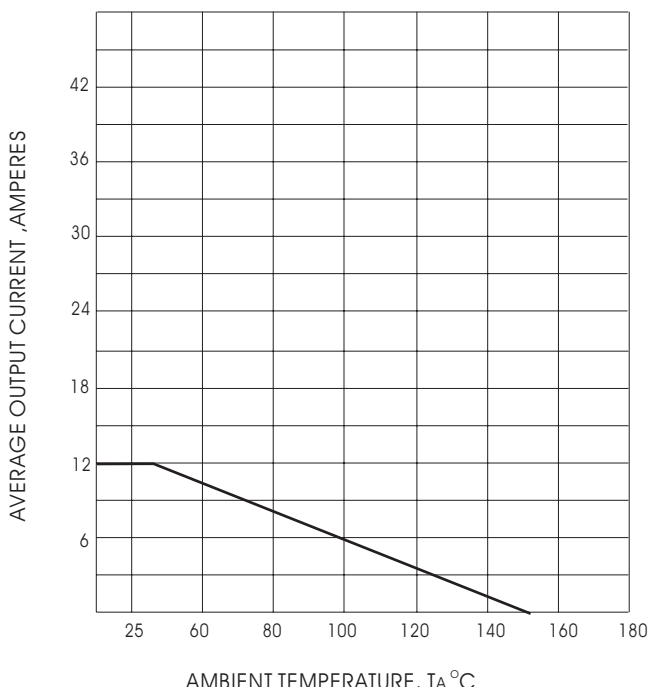


Fig. 3- OUTPUT CURRENT VS. AMBIENT TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25" THICK

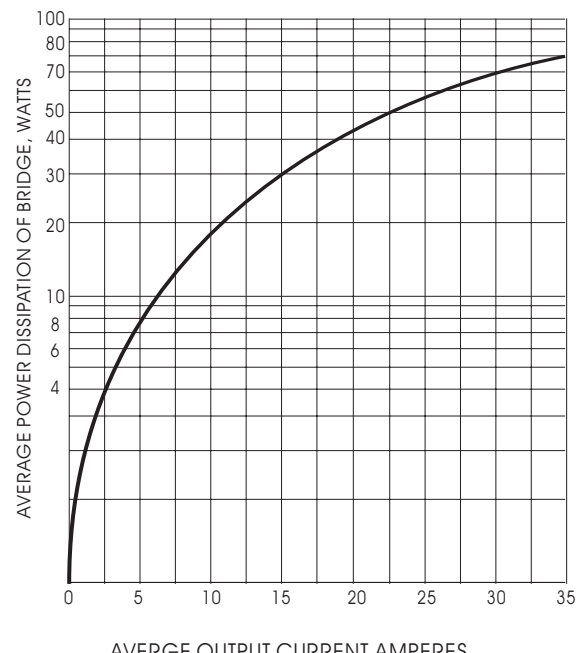


Fig. 4- POWER DISSIPATION VS. AVERAGE OUTPUT  
CURRENT RESISTIVE OR INDUCTIVE LOAD  
 $T_J = 150^\circ\text{C}$