



# DATA SHEET

## GBPC35005W~GBPC3510W

### HIGH CURRENT SILICON BRIDGE RECTIFIER

**VOLTAGE - 50 to 1000 Volts CURRENT - 35 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 400 Amperes .

#### MECHANICAL DATA

Case: Molded plastic with heatsink integrally mounthed in the bringe encapsulation.

Mounting position: Any

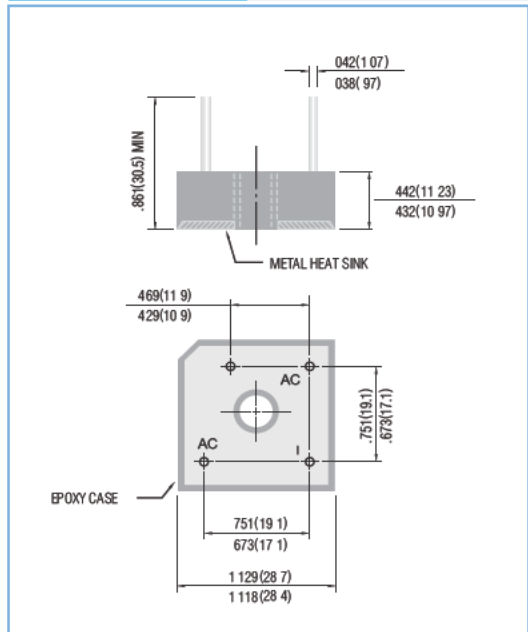
Weight: 1 ounce, 30 grams

\* W \* Suffix Designates Wire Leads

No Suffix Designates faston Terminals

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 35005W	GBPC 3501W	GBPC 3502W	GBPC 3504W	GBPC 3506W	GBPC 3508W	GBPC 3510W	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
DC Output Voltage, Resistive load	30	62	124	250	380	505	630	V
DC Output Voltage, Capacitive load	50	100	200	400	600	800	1000	V
Maximum Average Forward Current For Resistive Load at TC=55°C	35							A
Non-repetitive Peak Forward Surge Current at Rated Load	400							A
Maximum Forward Voltage per Bridge Element at 17.5A Specified Current	1.2							V
Maximum Reverse Leakage Current at Rated @ T <sub>A</sub> =25°C Dc Blocking Voltage @ T <sub>A</sub> =100°C	10.0 1000							µA
I <sup>2</sup> t Rating for fusing ( t < 8.35ms)	664							A <sup>2</sup> S
Typical Thermal Resistance per leg (Fig 3) R <sub>θJC</sub>	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**

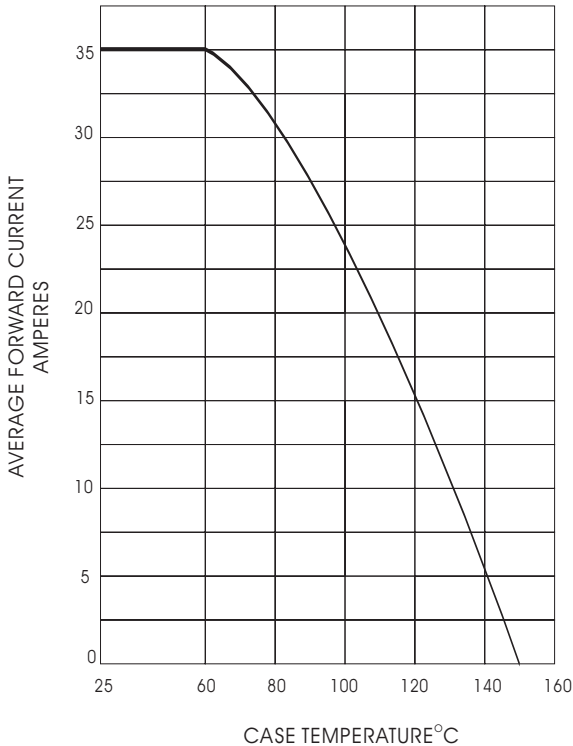


Fig. 1- OUTPUT CURRENT VS. CASE TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  $T_J = 150^{\circ}C$

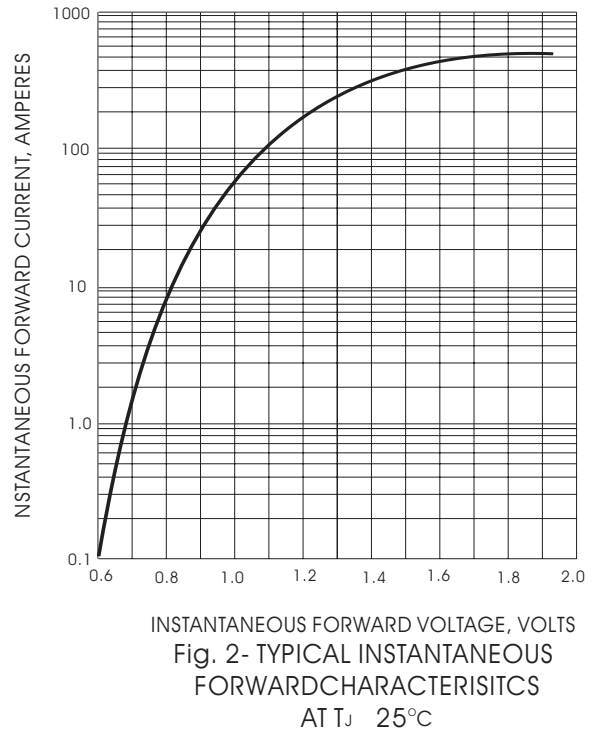


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS  
AT  $T_J = 25^{\circ}C$

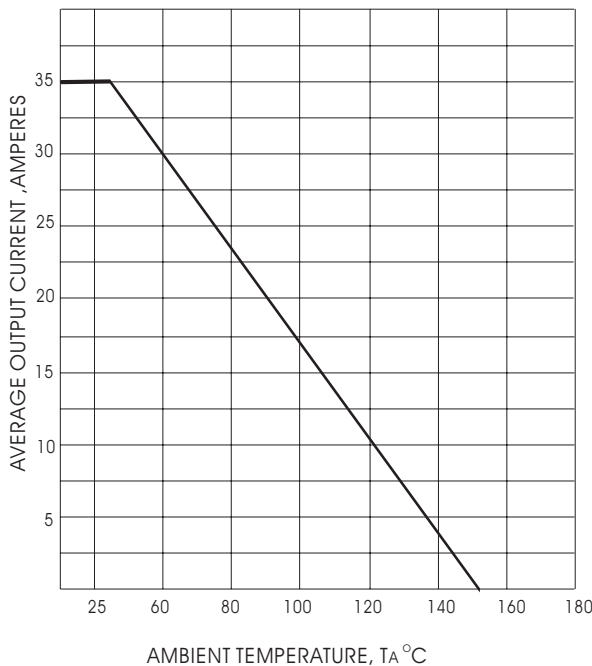


Fig. 3- OUTPUT CURRENT VS. AMBIENT TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25" THICK

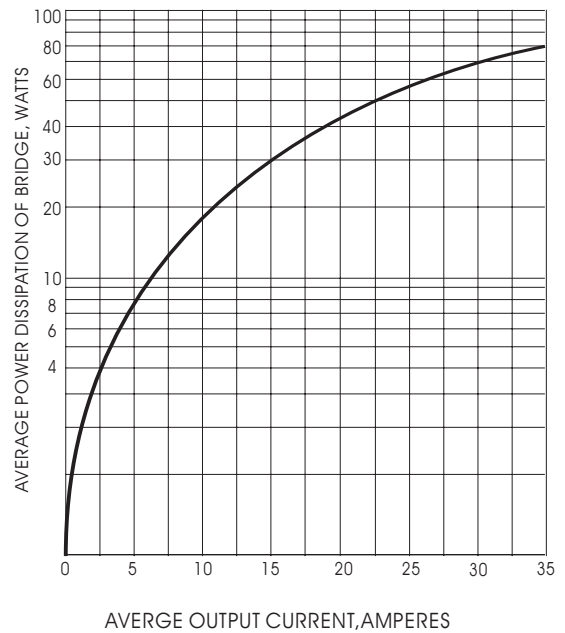


Fig. 4- POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT  
RESISTIVE OR INDUCTIVE LOAD  
 $T_J = 150^{\circ}C$