



# DATA SHEET

## GBPC25005W~GBPC2510W

**HIGH CURRENT SILICON BRIDGE RECTIFIER**

**VOLTAGE - 50 to 1000 Volts CURRENT - 25 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 300 Amperes .

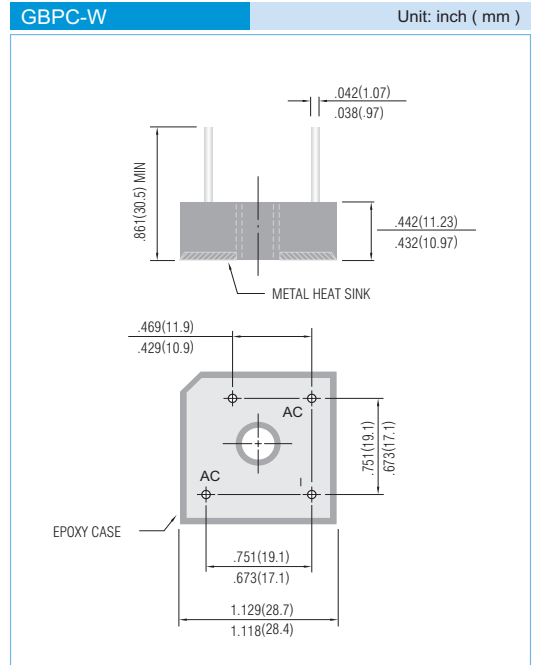
### MECHANICAL DATA

Case: Molded plastic with heatsink integrally mounded in the bridge 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



### 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 25005W	GBPC 2501W	GBPC 2502W	GBPC 2504W	GBPC 2506W	GBPC 2508W	GBPC 25010W	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	25							A
Non-repetitive Peak Forward Surge Current at Rated Load	300							A
Maximum Forward Voltage per Bridge Element at 12.5A 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)	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

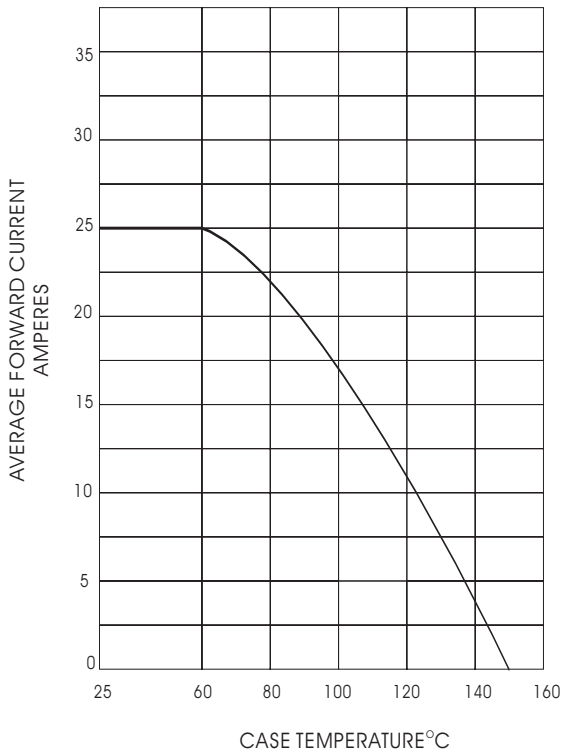


Fig. 1- OUTPUT CURRENT VS. CASE TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  $T_J = 150^\circ\text{C}$

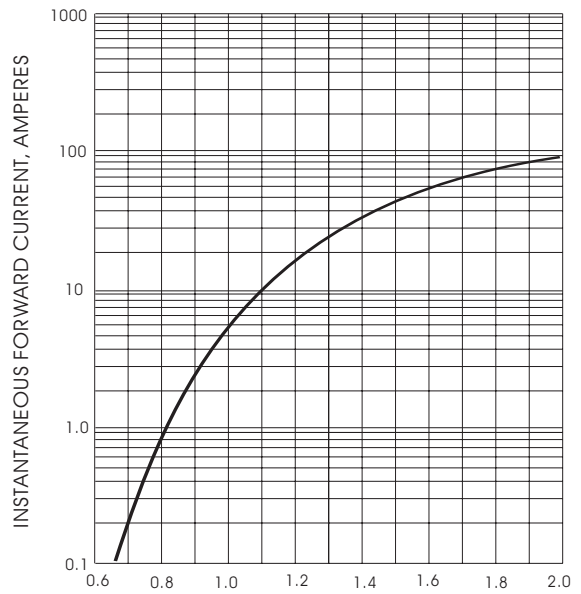


Fig. 2- TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS  
AT  $T_J = 25^\circ\text{C}$

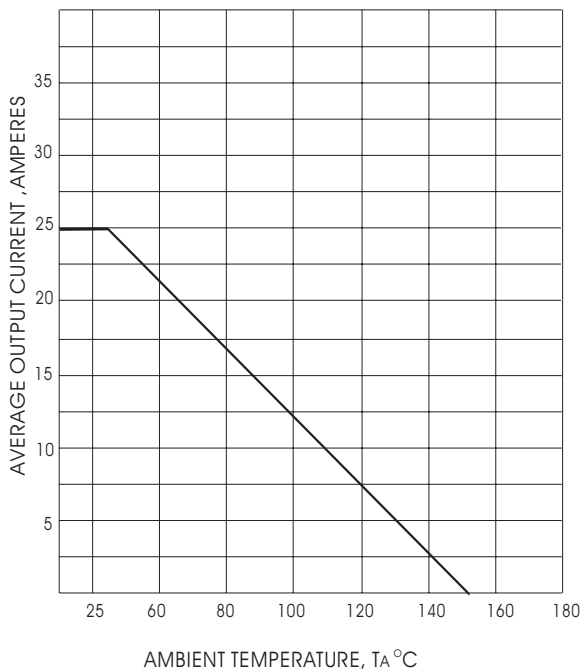


Fig. 3- OUTPUT CURRENT VS. AMBIENT TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25" THICK

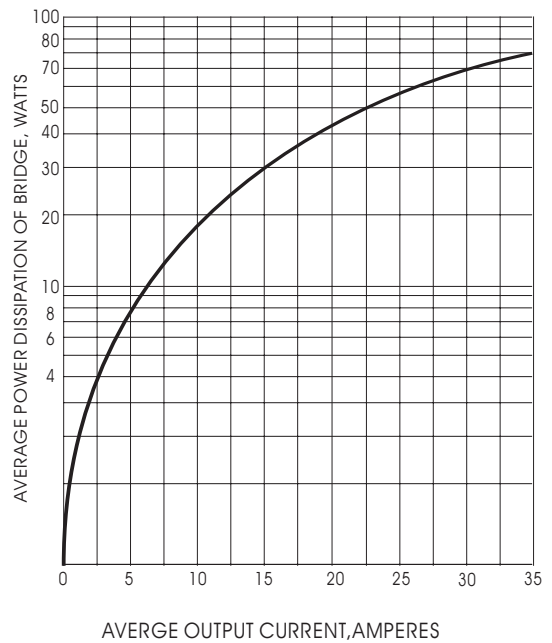


Fig. 4- POWER DISSIPATION VS. AVERAGE OUTPUT  
CURRENT RESISTIVE OR INDUCTIVE LOAD  
 $T_J = 150^\circ\text{C}$