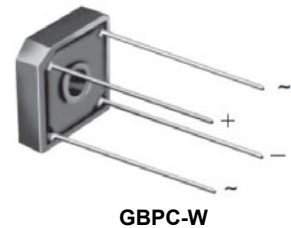


# GBPC35005W thru GBPC3510W

Glass Passivated Single-Phase Bridge Rectifiers  
 Voltage 50V to 1000V Forward Current 35A

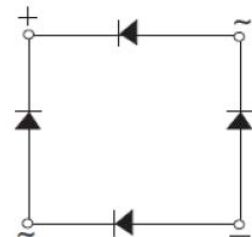
## Features

- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106



## Mechanical Data

- Package: GBPC-W
- Molding compound meets UL 94 V-0 flammability rating, RoHS - compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102



Schematic Diagram

## Applications

General purpose use in AC / DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

## Absolute Maximum Ratings (T<sub>A</sub>=25°C Unless otherwise specified)

Parameter	Symbol	GBPC35 005W	GBPC35 01W	GBPC35 02W	GBPC35 04W	GBPC35 06W	GBPC35 08W	GBPC35 10W	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ 60Hz Sine Wave, R-Load, With Heatsink, T <sub>C</sub> =55°C	I <sub>O</sub>	35							A
Surge (Non-repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, T <sub>A</sub> =25°C	I <sub>FSM</sub>	400							A
Current Squared Time @1ms ≤ t ≤ 8.3ms, T <sub>J</sub> =25°C, Rating of Per Diode	I <sup>2</sup> t	660							A <sup>2</sup> S
Storage Temperature	T <sub>STG</sub>	-55 to +150							°C
Junction Temperature	T <sub>J</sub>	-55 to +150							°C
Dielectric Strength, Terminals to Case, AC 1 Minute	V <sub>dis</sub>	2.5							KV
Mounting Torque	TOR	10							Kg.cm
Thermal Resistance, Junction and Case, With Heatsink	R <sub>θJC</sub>	1.35							°C/W

## Electrical Characteristics (T<sub>A</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	GBPC35 005W	GBPC35 01W	GBPC35 02W	GBPC35 04W	GBPC35 06W	GBPC35 08W	GBPC35 10W	Unit
Maximum Instantaneous Forward Voltage Drop per Diode	V <sub>FM</sub>	I <sub>FM</sub> =17.5A	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode	I <sub>R</sub>	V <sub>RM</sub> =V <sub>RRM</sub>	10							uA

## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

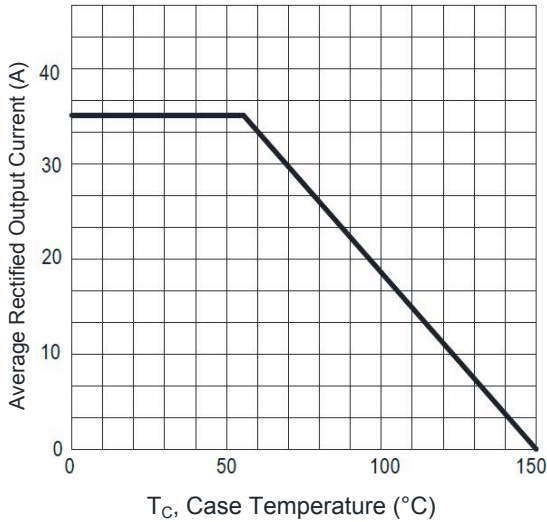


Figure 1.  $I_o - T_c$  Curve

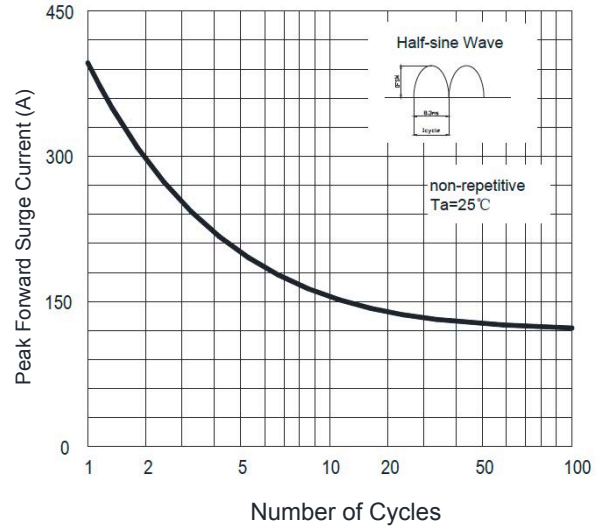


Figure 2. Surge Forward Current Capability

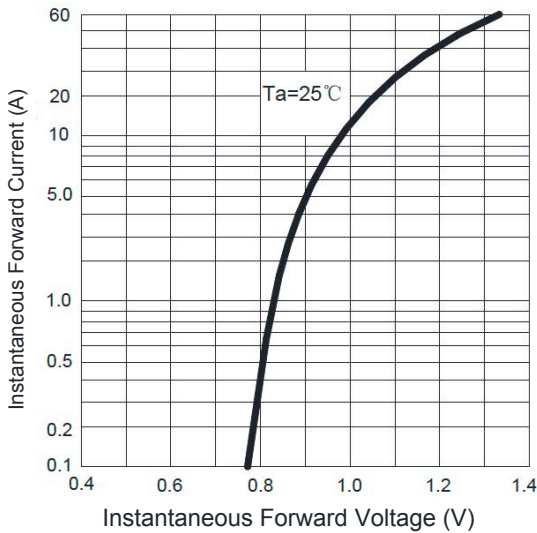


Figure 3. Instantaneous Forward Voltage

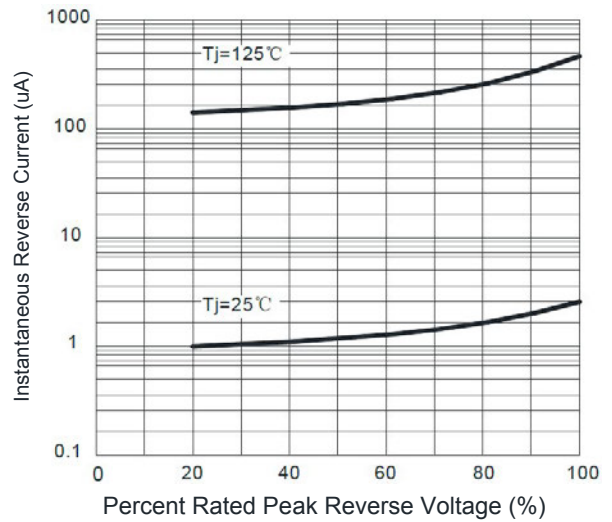
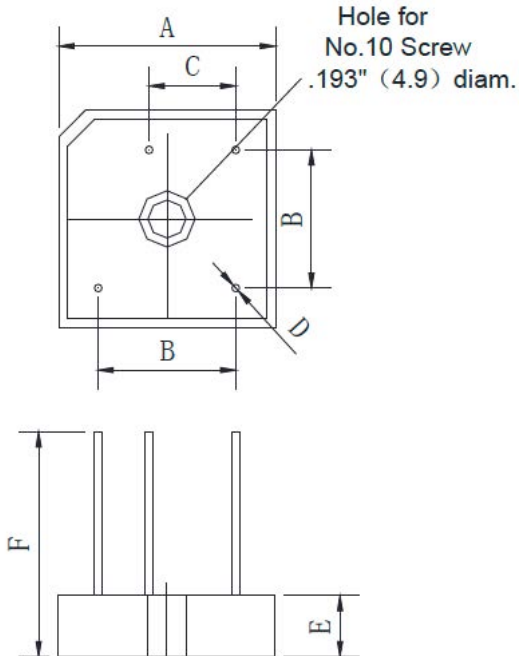


Figure 4. Typical Reverse Characteristics

# **GBPC35005W thru GBPC3510W**

Glass Passivated Single-Phase Bridge Rectifiers  
 Voltage 50V to 1000V Forward Current 35A

## **Package Outline Dimensions GBPC-W**



<b>GBPC-W</b>		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	7.6	8.2
F	30	-

Dimensions in millimeters