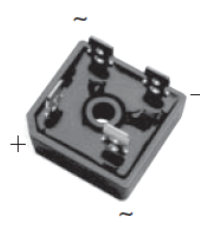


# GBPC3512 / GBPC3512W

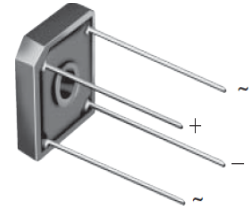
Glass Passivated Single-Phase Bridge Rectifiers  
 Voltage 1200V Forward Current 35A

## 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



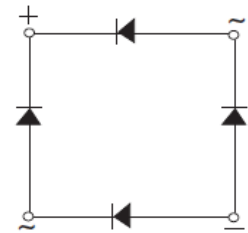
Package: GBPC  
GBPC3512



Package: GBPC-W  
GBPC3512W

## Mechanical Data

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



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	1200	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	T <sub>OR</sub>	10	Kg*cm
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	1.35	°C/W

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

Parameter	Symbol	Test Conditions	Value	Unit
Maximum Instantaneous Forward Voltage Drop per Diodo	V <sub>FM</sub>	I <sub>FM</sub> =17.5A	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diodo	I <sub>RRM</sub>	V <sub>RM</sub> =V <sub>RRM</sub>	10	μA

**Ratings and Characteristics Curves**

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

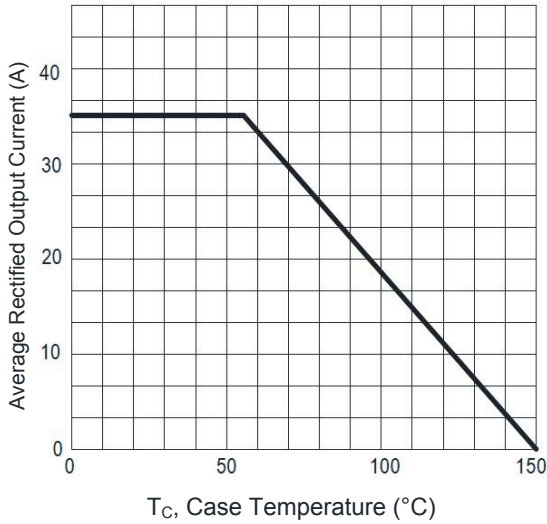


Figure 1.  $I_o$ - $T_C$  Curve

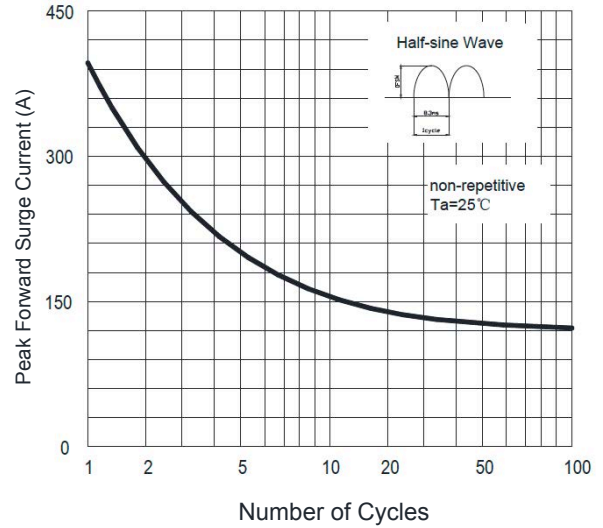


Figure 2. Surge Forward Current Capability

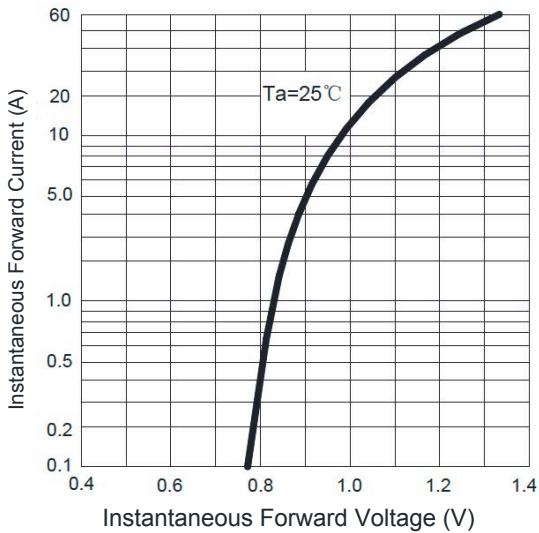


Figure 3. Instantaneous Forward Voltage

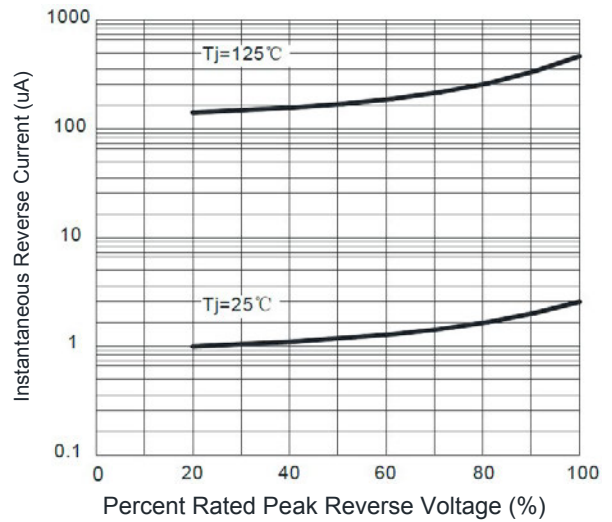


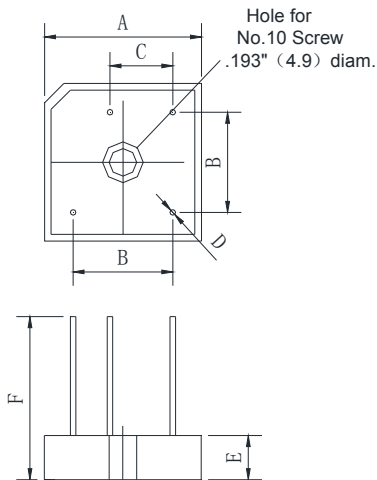
Figure 4. Typical Reverse Characteristics

# **GBPC3512 / GBPC3512W**

Glass Passivated Single-Phase Bridge Rectifiers  
 Voltage 1200V Forward Current 35A

## Package Outline Dimensions

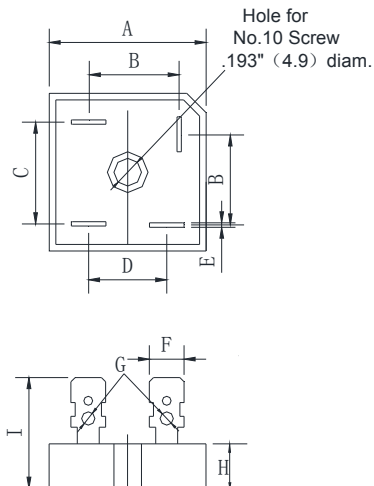
### GBPC-W



GBPC-W		
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

### GBPC



GBPC		
Dim	Min	Max
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.4	2.6
H	7.6	8.2
I	19	

Dimensions in millimeters