

GBPC35005 thru GBPC3510

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

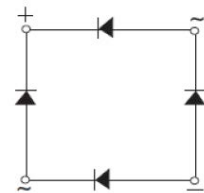
Features

- 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
- 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_A=25°C Unless otherwise specified)

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

Electrical Characteristics (T_A=25°C Unless otherwise specified)

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

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Ratings and Characteristics Curves

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

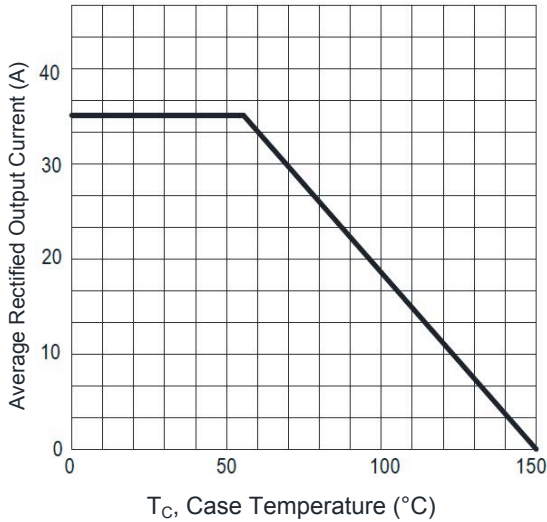


Figure 1. $I_o - T_c$ Curve

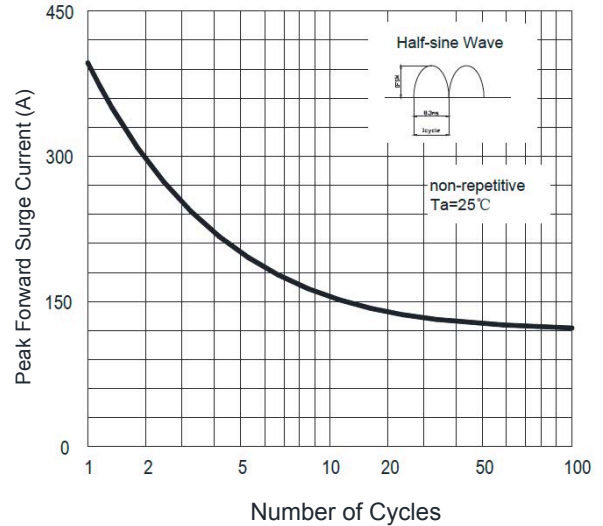


Figure 2. Surge Forward Current Capability

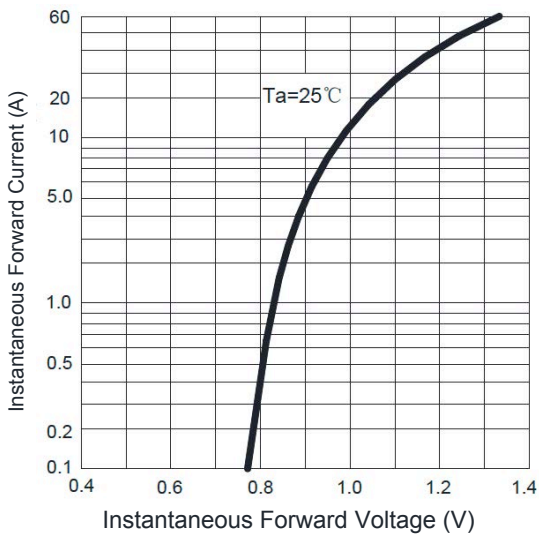


Figure 3. Instantaneous Forward Voltage

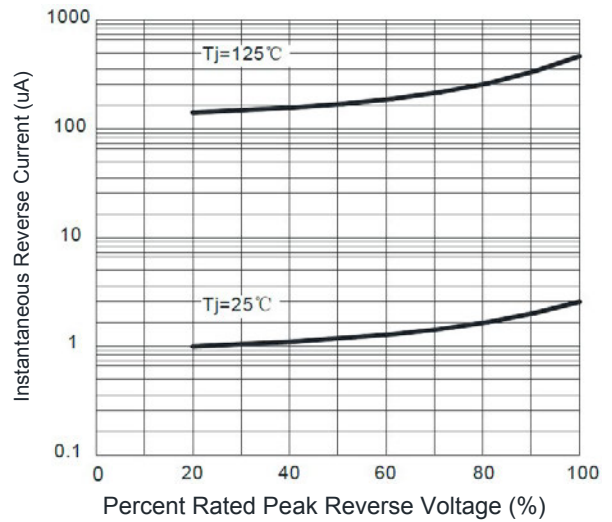
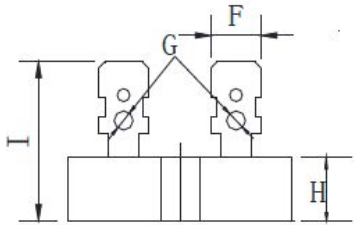
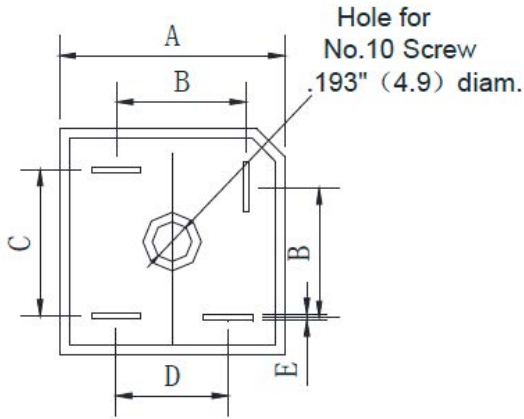


Figure 4. Typical Reverse Characteristics

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Package Outline Dimensions 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	2.2	2.6
H	7.6	8.2
I	19	-

Dimensions in millimeters