

# GBPC1000/W – GBPC1010/W

## 10A GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E157705

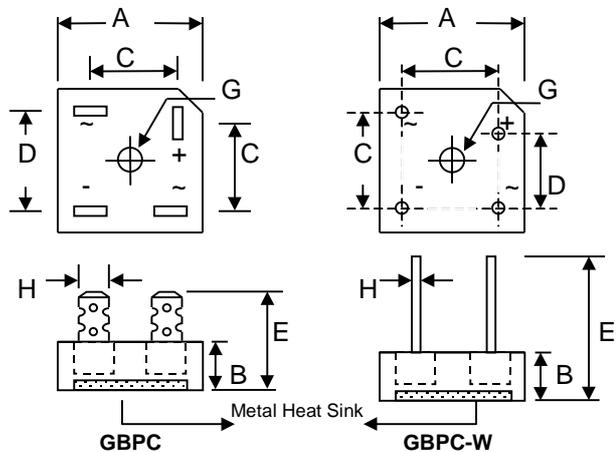
### Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: GBPC 24 grams (approx.)  
GBPC-W 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads

No Suffix Designates Faston Terminals

\*All Models Available on Dim. B=7.9mm Max. Epoxy Case



Dim	GBPC		GBPC-W	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
*B	10.97	11.23	10.97	11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
All Dimension in mm				

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	GBPC 1000/W	GBPC 1001/W	GBPC 1002/W	GBPC 1004/W	GBPC 1006/W	GBPC 1008/W	GBPC 1010/W	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 50^\circ\text{C}$	$I_O$	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A
Forward Voltage (per element) @ $I_F = 5.0\text{A}$	$V_{FM}$	1.1							V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	$I_{RM}$	5.0 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_j$	300							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	5.3							K/W
RMS Isolation Voltage from Case to Lead	$V_{ISO}$	2500							V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case per element mounted on heatsink.

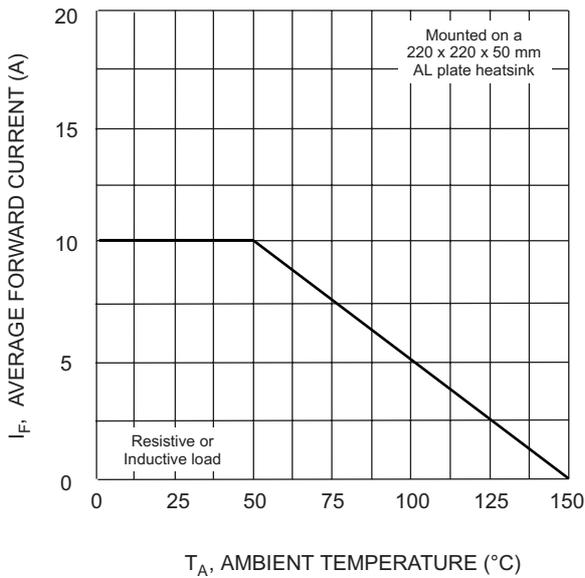


Fig. 1 Forward Current Derating Curve

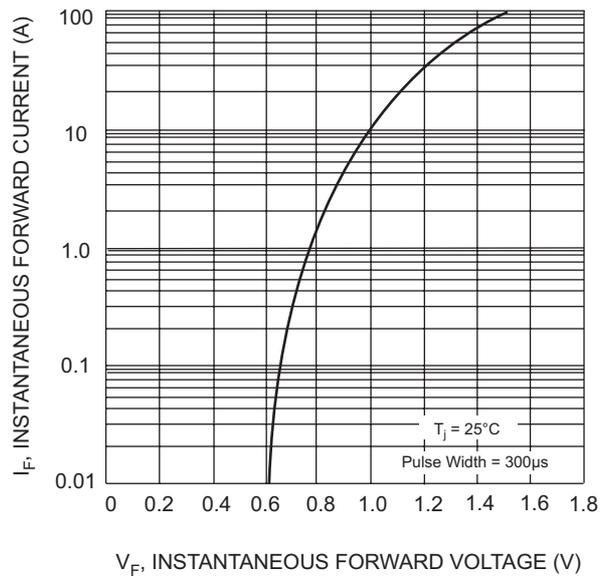


Fig. 2 Typical Forward Characteristics (per element)

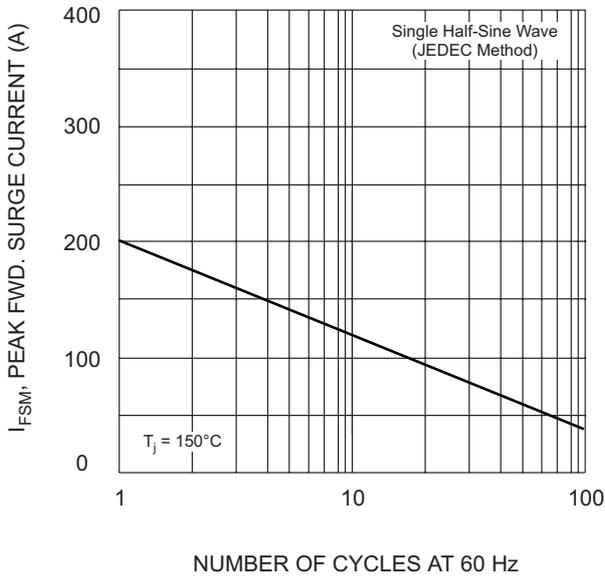


Fig. 3 Max Non-Repetitive Surge Current

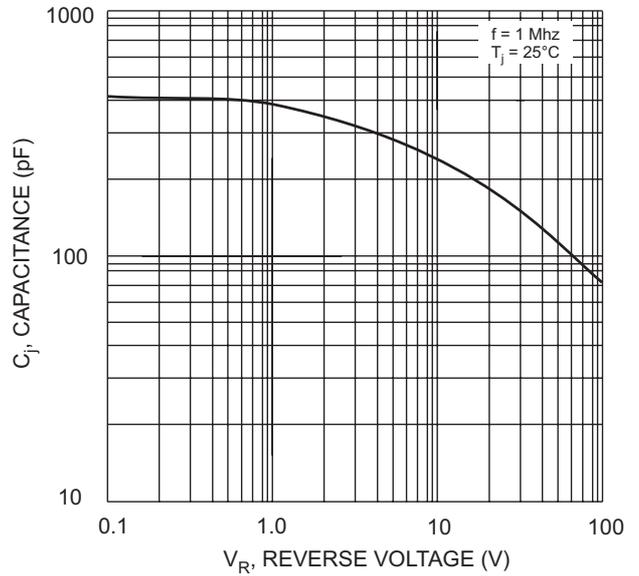


Fig. 4 Typical Junction Capacitance (per element)

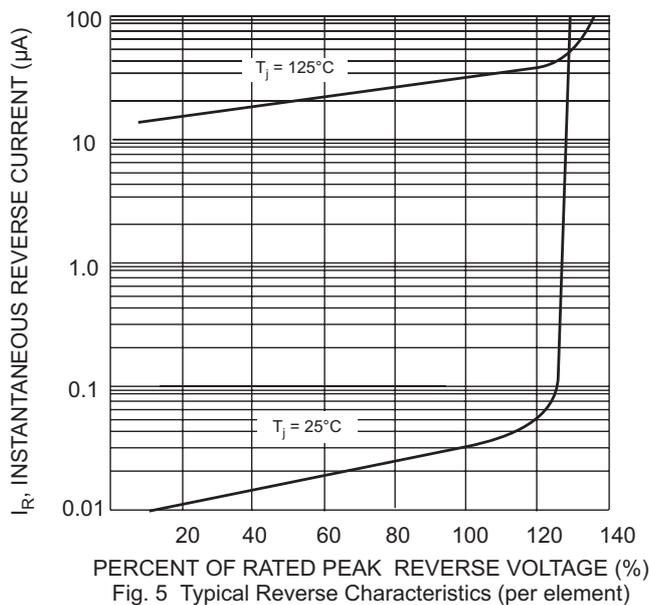


Fig. 5 Typical Reverse Characteristics (per element)

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBPC1000	Square Bridge	50 Units/Box
GBPC1000W	Square Bridge	50 Units/Box
GBPC1001	Square Bridge	50 Units/Box
GBPC1001W	Square Bridge	50 Units/Box
GBPC1002	Square Bridge	50 Units/Box
GBPC1002W	Square Bridge	50 Units/Box
GBPC1004	Square Bridge	50 Units/Box
GBPC1004W	Square Bridge	50 Units/Box
GBPC1006	Square Bridge	50 Units/Box
GBPC1006W	Square Bridge	50 Units/Box
GBPC1008	Square Bridge	50 Units/Box
GBPC1008W	Square Bridge	50 Units/Box
GBPC1010	Square Bridge	50 Units/Box
GBPC1010W	Square Bridge	50 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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