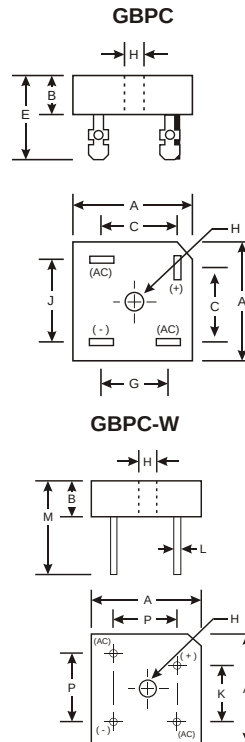


Features

- Σ Glass Passivated Die Construction
- Σ Low Reverse Leakage Current
- Σ Low Power Loss, High Efficiency
- Σ Surge Overload Rating to 300A Peak
- Σ Electrically Isolated Metal Base for Maximum Heat Dissipation
- Σ Case to Terminal Isolation Voltage 1500V
- Σ UL Listed Under Recognized Component Index, File Number E94661
- Σ **Lead Free Finish, RoHS Compliant (Date Code 0514+)**
(Note 4)

Mechanical Data

- Σ Case: GBPC/GBPC-W
- Σ Case Material: Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation. UL Flammability Classification Rating 94V-0
- Σ Moisture Sensitivity: Level 1 per J-STD-020C
- Σ Terminals: Finish æ Silver. Plated Leads Solderable per MIL-STD-202, Method 208
- Σ Polarity: As Marked on Case
- Σ Mounting: Through Hole for #10 Screw
- Σ Mounting Torque: 8.0 Inch-pounds Maximum
- Σ Ordering Information: See Last Page
- Σ Marking: Type Number
- Σ GBPC Weight: 20 grams (approximate)
- Σ GBPC-W Weight: 14 grams (approximate)



GBPC / GBPC-W		
Dim	Min	Max
A	28.30	28.80
B	7.40	8.25
C	16.10	17.10
E	18.80	21.30
G	13.80	14.80
H	Hole for #10 screw	
	5.08Δ	5.59Δ
J	17.60	18.60
K	10.90	11.90
L	0.97Δ	1.07Δ
M	31.80	æ
P	17.60	18.60
All Dimensions in mm		

"W" Suffix Designates Wire Leads
No Suffix Designates Faston Terminals

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	GBPC15005/W	GBPC1501/W	GBPC1502/W	GBPC1504/W	GBPC1506/W	GBPC1508/W	GBPC1510/W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _C = 70°C	I _O	15							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	300							A
Forward Voltage (per element) @ I _F = 7.5A	V _{FM}	1.1							V
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 125°C	I _R	5.0 500							mA
I ² t Rating for Fusing (Note 1)	I ² t	374							A ² s
Typical Total Capacitance (Note 2)	C _T	300							pF
Typical Thermal Resistance per leg (Note 3)	R _{qJC}	1.4							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

- Notes: 1. Non-repetitive, for t > 1.0ms and t < 8.3ms.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to case mounted on heatsink.
4. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

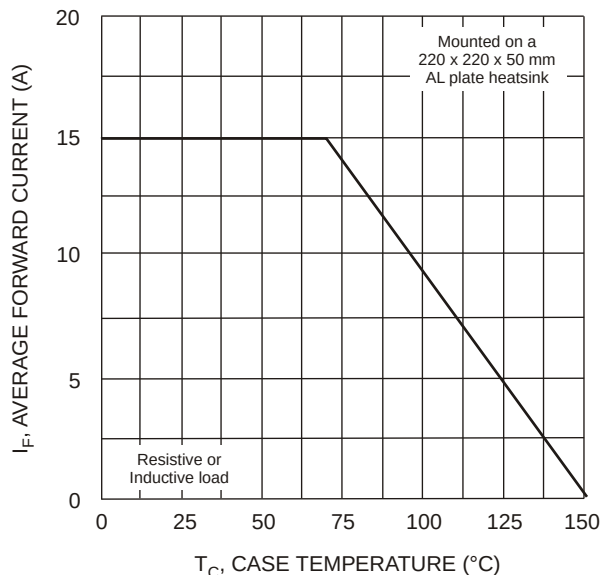


Fig. 1 Forward Current Derating Curve

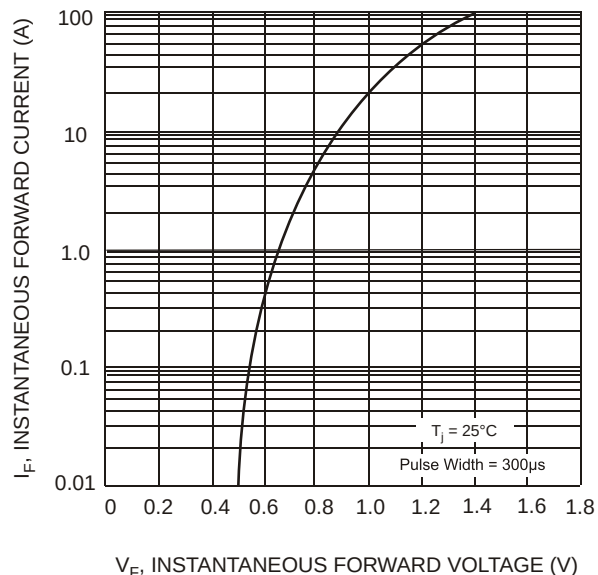


Fig. 2 Typical Forward Characteristics (per element)

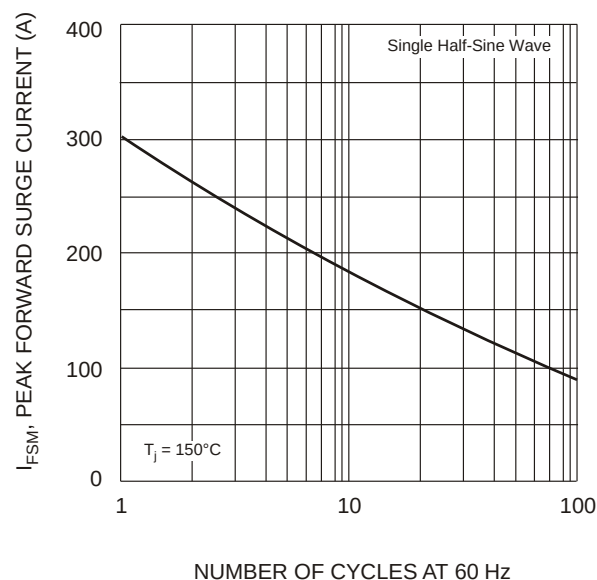


Fig. 3 Max Non-Repetitive Surge Current

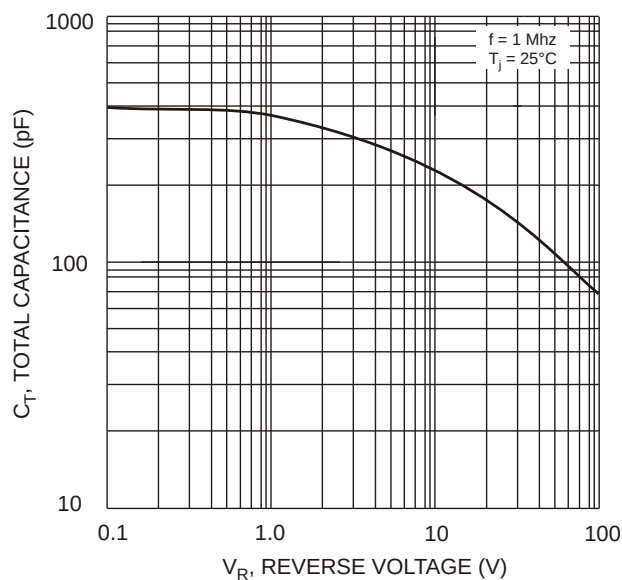


Fig. 4 Typical Total Capacitance (per element)

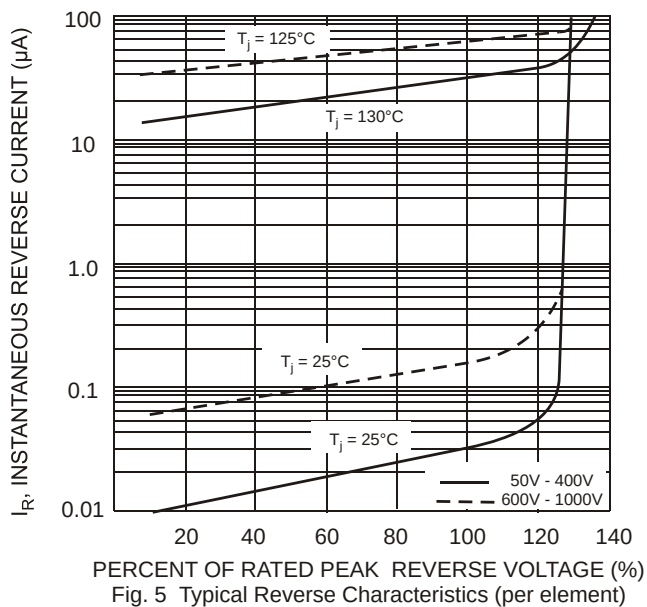


Fig. 5 Typical Reverse Characteristics (per element)

Ordering Information (Note 5)

Device	Packaging	Shipping
GBPC15005	GBPC	100/Tray
GBPC1501	GBPC	100/Tray
GBPC1502	GBPC	100/Tray
GBPC1504	GBPC	100/Tray
GBPC1506	GBPC	100/Tray
GBPC1508	GBPC	100/Tray
GBPC1510	GBPC	100/Tray
GBPC15005W	GBPC-W	100/Tray
GBPC1501W	GBPC-W	100/Tray
GBPC1502W	GBPC-W	100/Tray
GBPC1504W	GBPC-W	100/Tray
GBPC1506W	GBPC-W	100/Tray
GBPC1508W	GBPC-W	100/Tray
GBPC1510W	GBPC-W	100/Tray

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap2008.pdf>

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