

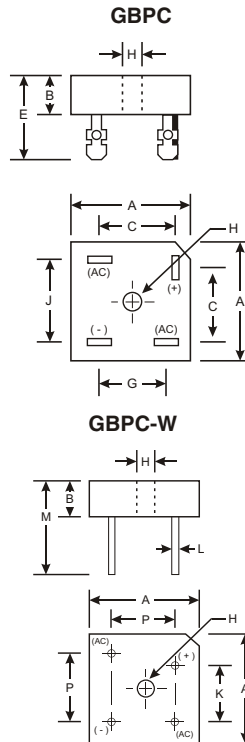
Features

Glass Passivated Die Construction
 Low Reverse Leakage Current
 Low Power Loss, High Efficiency
 Surge Overload Rating to 300A Peak
 Electrically Isolated Metal Base for Maximum Heat Dissipation
 Case to Terminal Isolation Voltage 1500V
 UL Listed Under Recognized Component Index, File Number E94661

**Lead Free Finish, RoHS Compliant (Date Code 0514+)
 (Note 4)**

Mechanical Data

Case: GBPC/GBPC-W
 Case Material: Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation. UL Flammability Classification Rating 94V-0
 Moisture Sensitivity: Level 1 per J-STD-020C
 Terminals: Finish Silver. Plated Leads Solderable per MIL-STD-202, Method 208
 Polarity: As Marked on Case
 Mounting: Through Hole for #10 Screw
 Mounting Torque: 8.0 Inch-pounds Maximum
 Ordering Information: See Last Page
 Marking: Type Number
 GBPC Weight: 20 grams (approximate)
 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	
	5.08	5.59
J	17.60	18.60
K	10.90	11.90
L	0.97	1.07
M	31.80	
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							A
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 _{JC}	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.

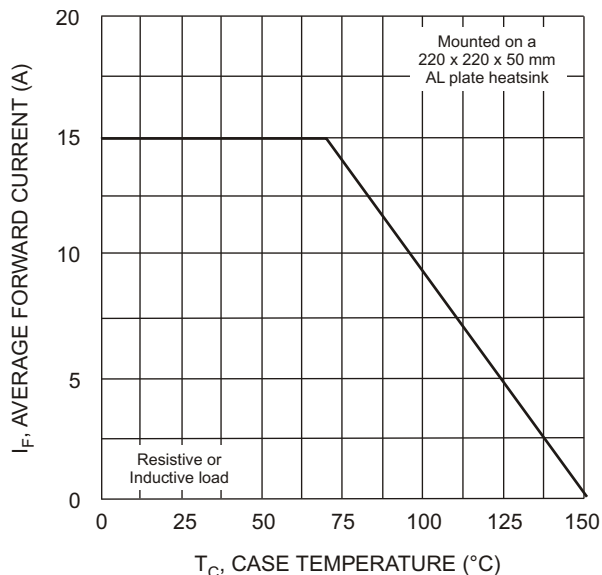


Fig. 1 Forward Current Derating Curve

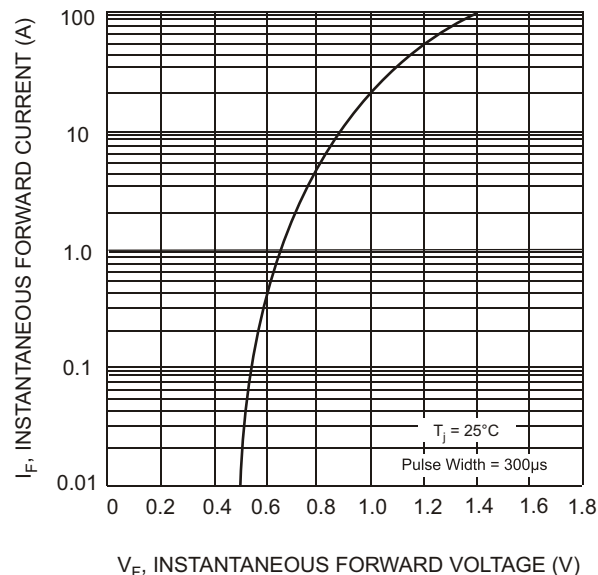


Fig. 2 Typical Forward Characteristics (per element)

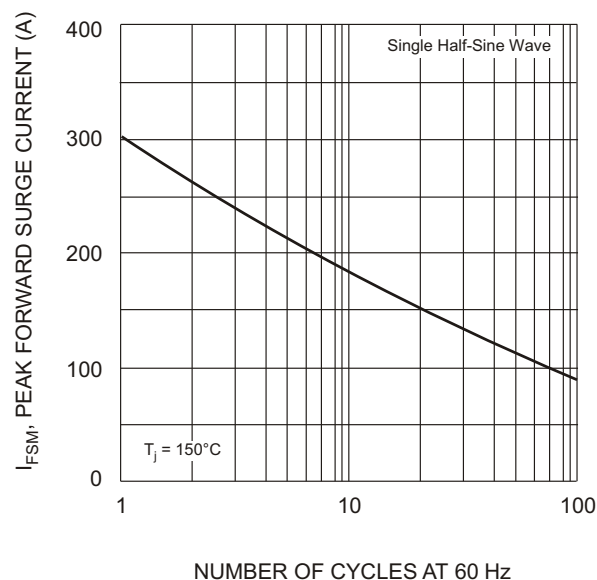


Fig. 3 Max Non-Repetitive Surge Current

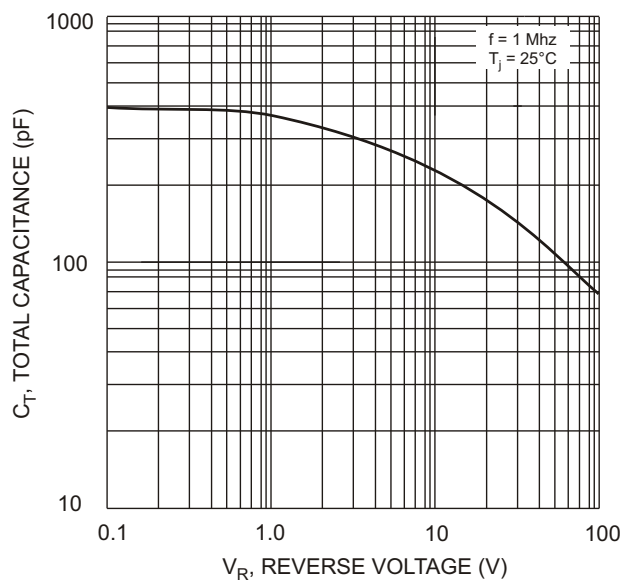


Fig. 4 Typical Total Capacitance (per element)

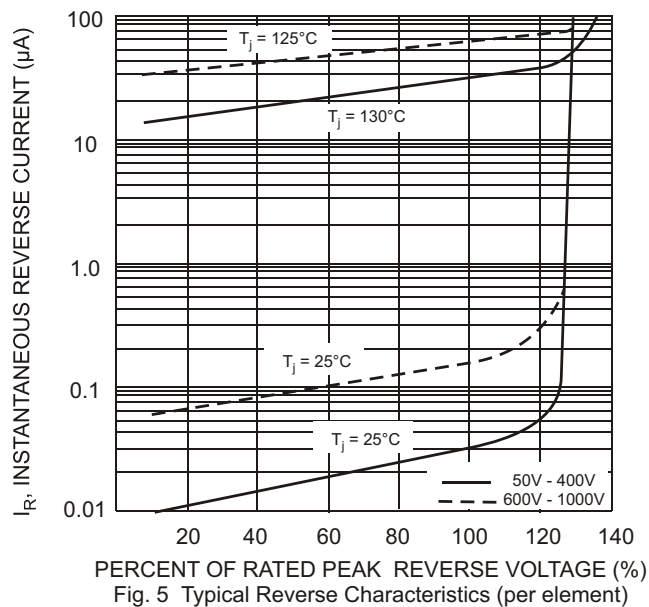


Fig. 5 Typical Reverse Characteristics (per element)

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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