

GBPC15005/W - GBPC1510/W

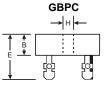
15A GLASS PASSIVATED BRIDGE RECTIFIER

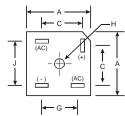
Features

- 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)

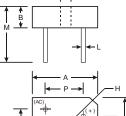
Mechanical Data

- 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-020D
- 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 Page 3
- Marking: Type Number
- GBPC Weight: 20 grams (approximate)
- GBPC-W Weight: 14 grams (approximate)





GBPC-W



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GBPC / GBPC-W					
Dim	Min	Max			
Α	28.30	28.80			
В	7.40	8.25			
С	16.10	17.10			
E	18.80	21.30			
G	13.80	14.80			
н	Hole for #10 screw				
п	5.08∅	5.59∅			
J	17.60	18.60			
K	10.90	11.90			
L	0.97∅	1.07∅			
М	31.80				
Р	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, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

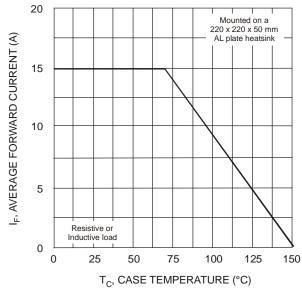
Characteristic	Symbol	GBPC15 005/W	GBPC15 01/W	GBPC15 02/W	GBPC15 04/W	GBPC15 06/W	GBPC15 08/W	GBPC15 10/W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _C = 70°C	Io				15				Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}				300				Α
Forward Voltage (per element) $@ I_F = 7.5A$	V _{FM}				1.1				V
Peak Reverse Current @ $T_C = 25^{\circ}C$ at Rated DC Blocking Voltage @ $T_C = 125^{\circ}C$	I _R				5.0 500				μΑ
I ² t Rating for Fusing (Note 1)	l ² t				374				A ² s
Typical Total Capacitance (Note 2)	Ст				300				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$				5.0				°C/W
Operating and Storage Temperature Range T _J		-65 to +150					°C		

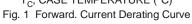
Notes: 1. Non-rep

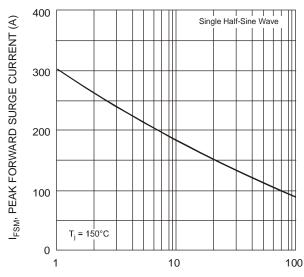
- 1. Non-repetitive, for t > 1.0ms and t < 8.3ms.
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. Thermal resistance junction to case mounted on heatsink.
- 4. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. Please visit our website at http://www.diodes.com/products/lead_free.html.

www.diodes.com

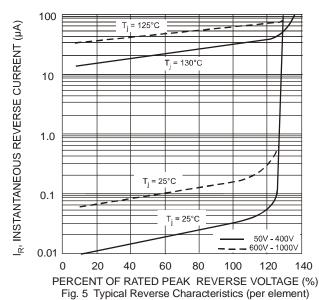


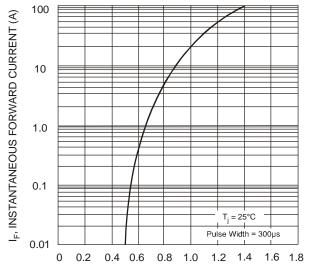






NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Surge Current





 $V_{\rm F}$, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics (per element)

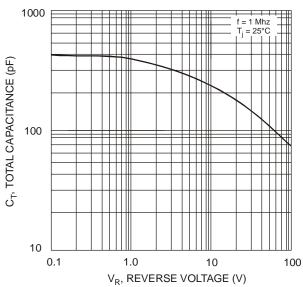


Fig. 4 Typical Total Capacitance (per element)



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, go to our website at http://www.diodes.com/datasheets/ap02008.pdf.

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