

GBPC15005/W - GBPC1510/W

15A GLASS PASSIVATED BRIDGE RECTIFIER

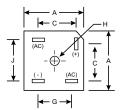
Features

- Glass Passivated Die Construction
- Diffused Junction
- 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

Mechanical Data

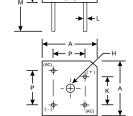
- Case: Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting: Through Hole for #10 Screw
- Mounting Torque: 8.0 Inch-pounds Maximum
- GBPC Weight: 20 grams (approx.)GBPC-W Weight: 14 grams (approx.)
- Mounting Position: Any

→ H ←



GBPC

GBPC-W →|H|←



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						
	5.08Ø	5.59Ø					
J	17.60	18.60					
K	10.90	11.90					
L	0.97Ø	1.07Ø					
М	31.80	_					
Р	17.60	18.60					
All Dimensions in mm							

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

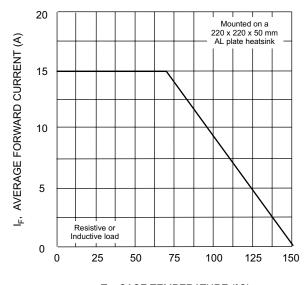
Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

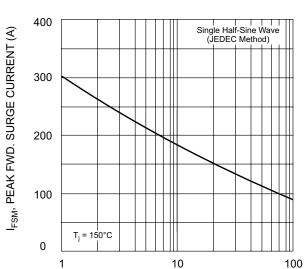
Characteristic		Symbol	GBPC15 005/W	GBPC15 01/W	GBPC15 02/W	GBPC15 04/W	GBPC15 06/W	GBPC15 08/W	GBPC15 10/W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current	@ T _C = 70°C	I _O	15						Α	
Non-Repetitive Peak Forward Surge Curre 8.3ms single half sine-wave superimposed (JEDEC Method)	ent I on rated load	I _{FSM}				300				Α
Forward Voltage (per element)	$@ I_F = 7.5A$	V _{FM}	1.1					٧		
Peak Reverse Current at Rated DC Blocking Voltage	@ T _C = 25°C @ T _C = 125°C	I _R	5.0 500						μΑ	
I ² t Rating for Fusing	(Note 1)	I ² t	374					A ² s		
Typical Junction Capacitance	(Note 2)	Cj	300				pF			
Typical Thermal Resistance per leg	(Note 3)	$R_{\theta JC}$	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.

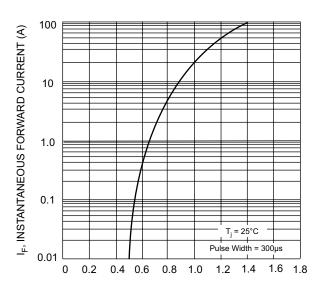
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. Thermal resistance junction to case mounted on heatsink.



 $\rm T_{\rm C},$ CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve



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



V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics (per element)

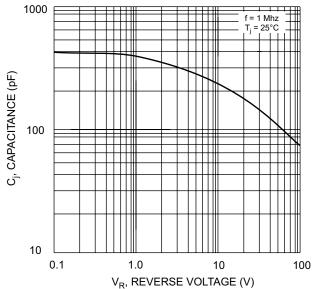


Fig. 4 Typical Junction Capacitance (per element)

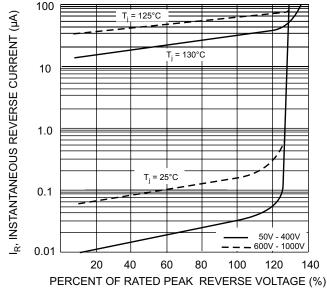


Fig. 5 Typical Reverse Characteristics (per element)