SEMICONDUCTOR

40, 50A GLASS PASSIVATED BRIDGE RECTIFIER

Data Sheet 1438, Rev.B

Green Products

Features

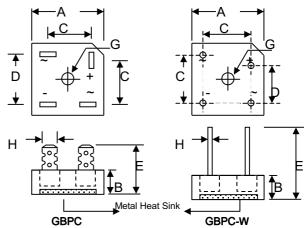
- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

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 #8 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 are Available on B(Height)=7.62mm Max. Epoxy Case



	GBPC				GBPC-W				
Dim	Min	Max	Min	Max	Min	Max	Min	Max	
Α	28.40	28.70	1.118	1.130	28.40	28.70	1.118	1.130	
В	10.97	11.23	0.432	0.442	10.97	11.23	0.432	0.442	
С	15.70	16.70	0.618	0.657	17.10	19.10	0.673	0.752	
D	17.50	18.50	0.689	0.728	10.90	11.90	0.429	0.469	
Е	22.86	25.40	0.90	1.00	30.50	_	1.201	_	
G	Hole for #8 screw, 4.90mm(0.193inch)ØNormina								
Н	6.35 Typical		0.25 Typical		0.97Ø	1.07Ø	0.038Ø	0.042Ø	
	In mm		In inch		In mm		In inch		

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

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

Characteristics	Symbol	-00/W-G	-01/W-G	-02/W-G	-04/W-G	-06/W-G	-08/W-G	-10/W-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectifier Output Current GBPC40 @Tc = 55°C GBPC50	lo	40 50							Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave GBPC40 Superimposed on rated load GBPC50 (JEDEC Method)	IFSM	400 400							Α
Forward Voltage Drop GBPC40 @I _F = 20A (per element) GBPC50 @I _F = 25A	VFM	1.1							V
	lгм				5.0 500				μА

SENSITRON

GBPC40, 50/W -G SERIES

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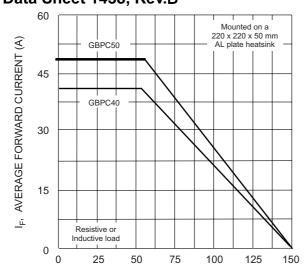
Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Typical Junction Capacitance (per element) (Note 1)	Cj	300	pF
Typical Thermal Resistance Junction GBPC40 to Case (per element) (Note 2) GBPC50	$R_{ heta}$ JC	1.5	K/W
RMS Isolation Voltage from Case to Lead	Viso	2500	V
Operating and Storage Temperature Range	Тj, Tsтg	-65 to +150	°C

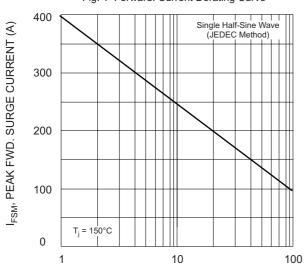
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

^{2.} Thermal resistance junction to case mounted on heatsink.

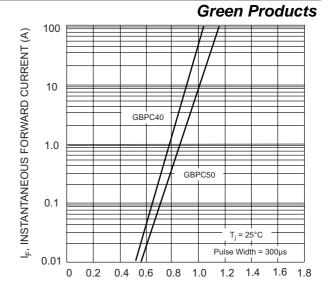
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 $T_{\rm C}$, CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve



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)

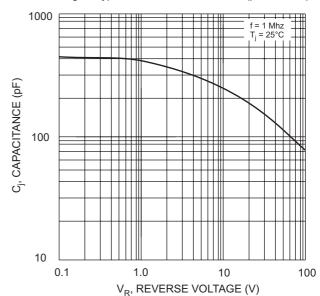
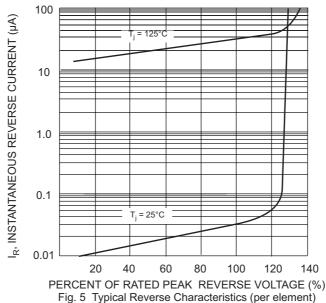


Fig. 4 Typical Junction Capacitance (per element)



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