


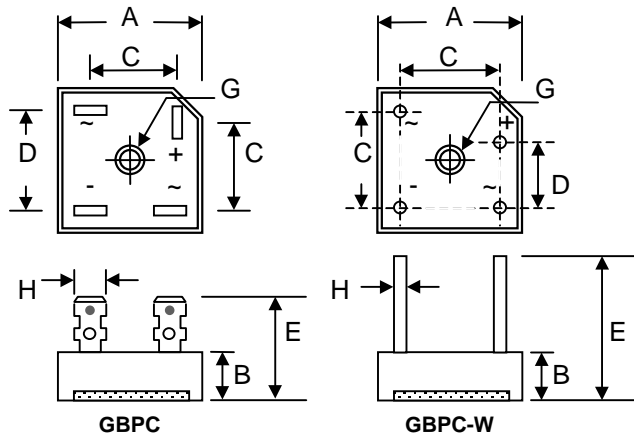
50A GLASS PASSIVATED HIGH CURRENT SINGLE-PHASE BRIDGE RECTIFIER

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
-  Recognized File # E157705

Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (GBPC); 18 grams (GBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



Dim	GBPC Low Profile / Standard		GBPC-W Low Profile / Standard	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	19.08 / 22.86	21.58 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø

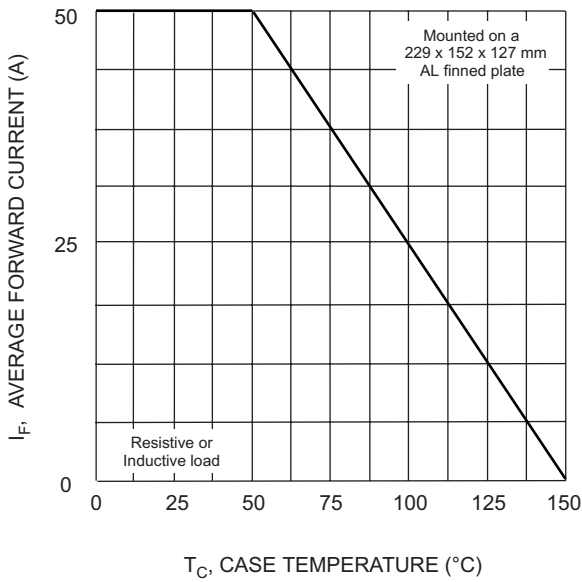
All Dimension in mm

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

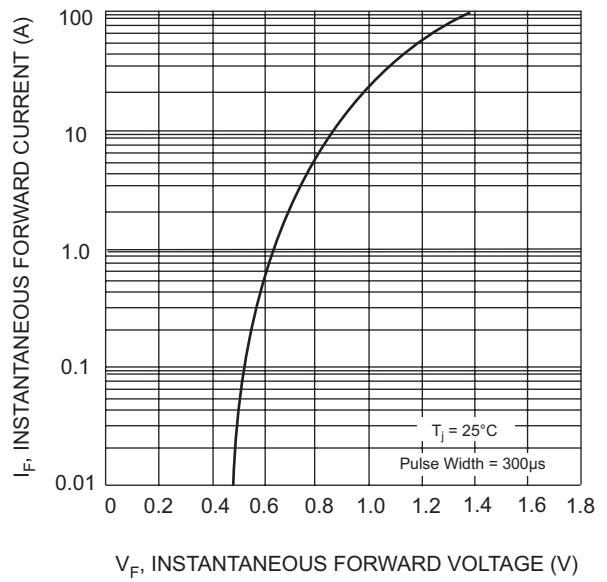
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	GBPC50										Unit	
		00	01	02	04	06	08	10	12	14	16		
Peak Repetitive Reverse Voltage	V _{RRM}												V
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	1200	1400	1600		
DC Blocking Voltage	V _R												
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	980	1120	V	
Average Rectified Output Current @T _C = 50°C	I _O	50										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	450										A	
Forward Voltage per leg @I _F = 25A	V _{FM}	1.1										V	
Peak Reverse Current @T _C = 25°C	I _{RM}	5.0										µA	
At Rated DC Blocking Voltage @T _C = 125°C		500											
I ² t Rating for Fusing (t < 8.3ms)	I ² t	800										A ² s	
Typical Junction Capacitance (Note 1)	C _j	400										pF	
Typical Thermal Resistance per leg (Note 2)	R _{θJC}	1.0										°C/W	
RMS Isolation Voltage from Case to Leads	V _{ISO}	2500										V	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150										°C	

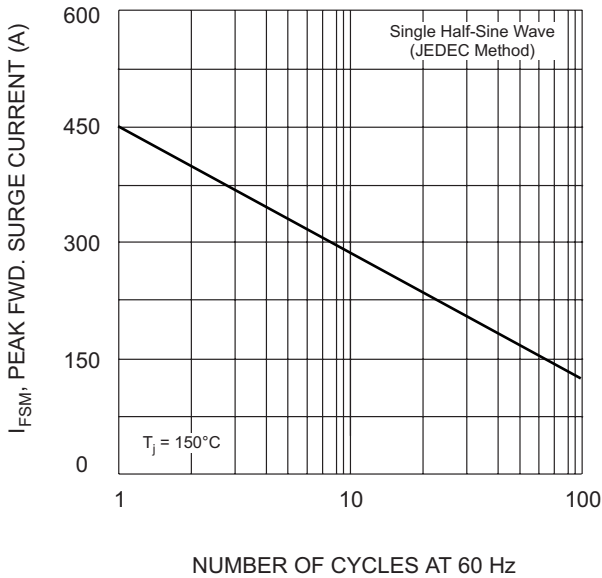
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on 229 x 152 x 127mm Al. finned plate.



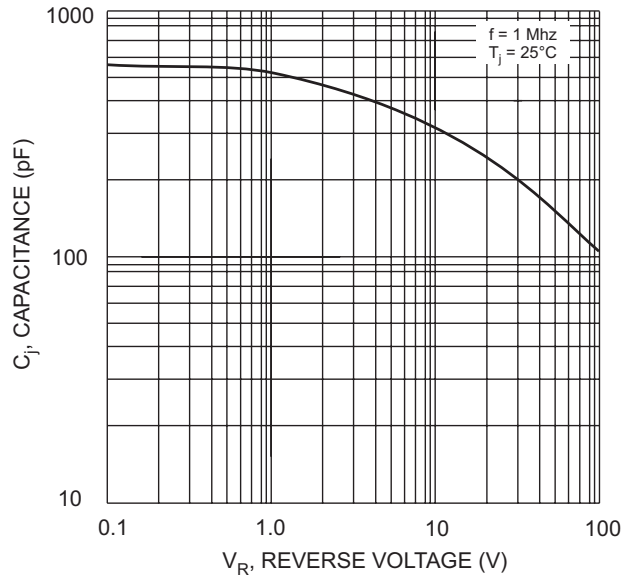
T_C , CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



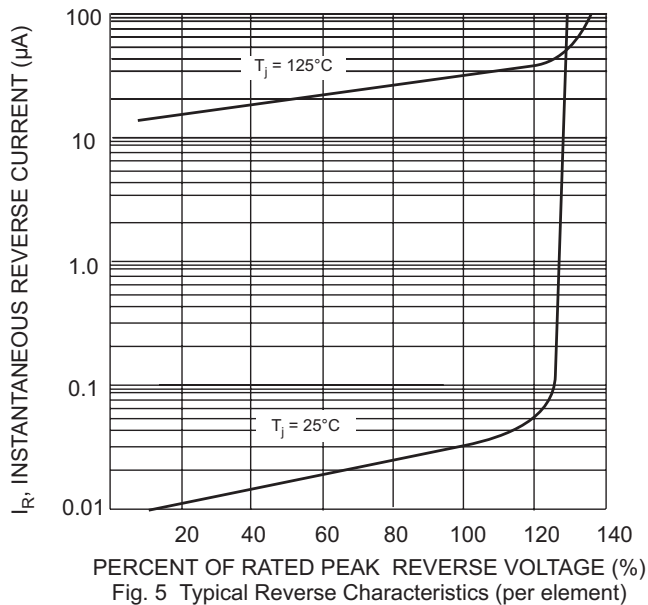
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



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

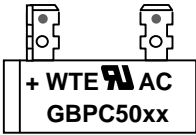
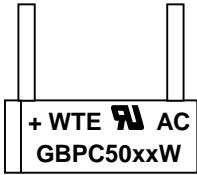


V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

<p>GBPC</p>  <p>WTE = Manufacturer's Logo GBPC50xx = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>	<p>GBPC-W</p>  <p>WTE = Manufacturer's Logo GBPC50xxW = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>
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PACKAGING INFORMATION

BULK					
Case Style	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
GBPC	195 x 195 x 40	50	405 x 205 x 240	500	12.0
GBPC-W	195 x 195 x 40	50	405 x 205 x 240	500	11.0

Note: 1. Paper box, white or brown color.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBPC5000	Square Bridge	50 Units/Box
GBPC5000W	Square Bridge	50 Units/Box
GBPC5001	Square Bridge	50 Units/Box
GBPC5001W	Square Bridge	50 Units/Box
GBPC5002	Square Bridge	50 Units/Box
GBPC5002W	Square Bridge	50 Units/Box
GBPC5004	Square Bridge	50 Units/Box
GBPC5004W	Square Bridge	50 Units/Box
GBPC5006	Square Bridge	50 Units/Box
GBPC5006W	Square Bridge	50 Units/Box
GBPC5008	Square Bridge	50 Units/Box
GBPC5008W	Square Bridge	50 Units/Box
GBPC5010	Square Bridge	50 Units/Box
GBPC5010W	Square Bridge	50 Units/Box
GBPC5012	Square Bridge	50 Units/Box
GBPC5012W	Square Bridge	50 Units/Box
GBPC5014	Square Bridge	50 Units/Box
GBPC5014W	Square Bridge	50 Units/Box
GBPC5016	Square Bridge	50 Units/Box
GBPC5016W	Square Bridge	50 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBPC5000-LF.**

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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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