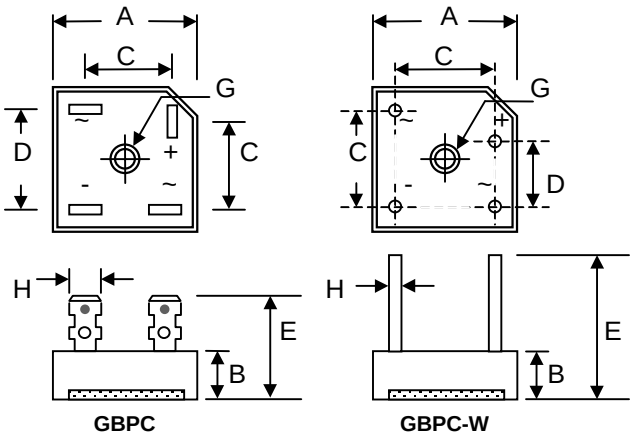
GBPC50 SERIES

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



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				

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**

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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	1200	1400	1600	V
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 At Rated DC Blocking Voltage @T_C = 125°C	I_{RM}	5.0 500										µA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	800										A^2s
Typical Junction Capacitance (Note 1)	C_j	400										pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JC}$	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.

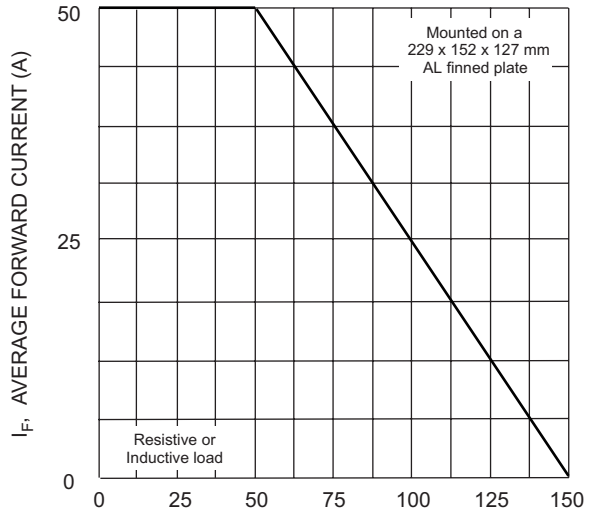


Fig. 1 Forward. Current Derating Curve

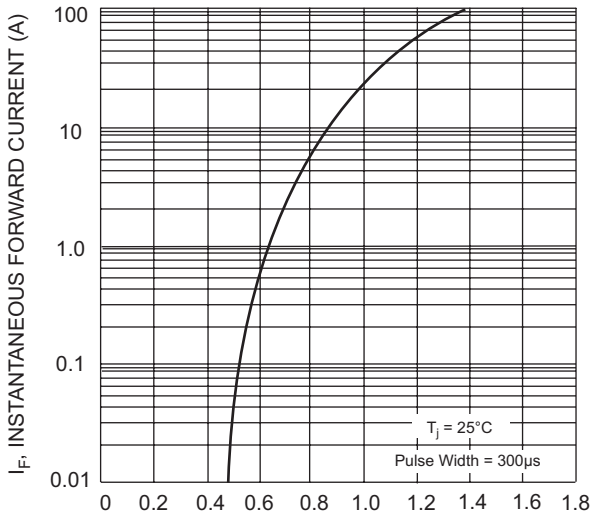


Fig. 2 Typical Forward Characteristics (per element)

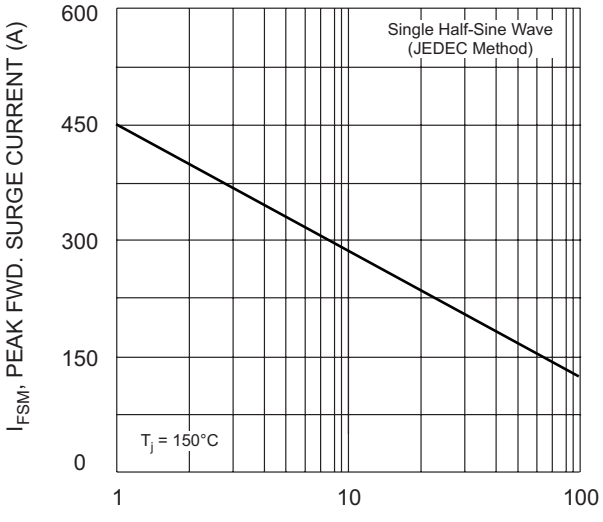


Fig. 3 Max Non-Repetitive Surge Current

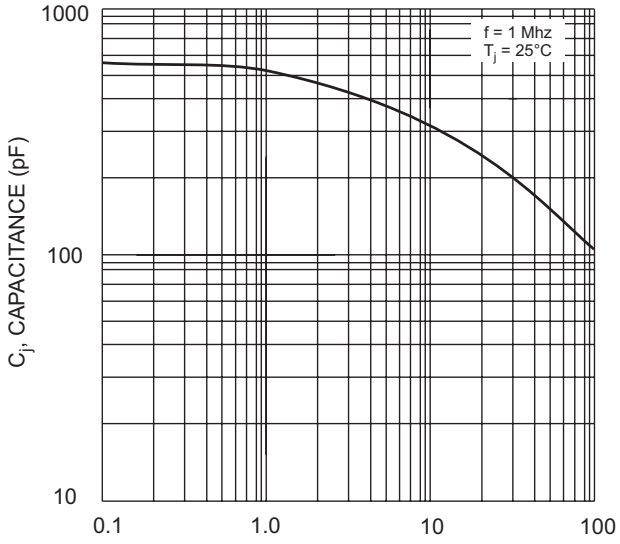


Fig. 4 Typical Junction Capacitance (per element)

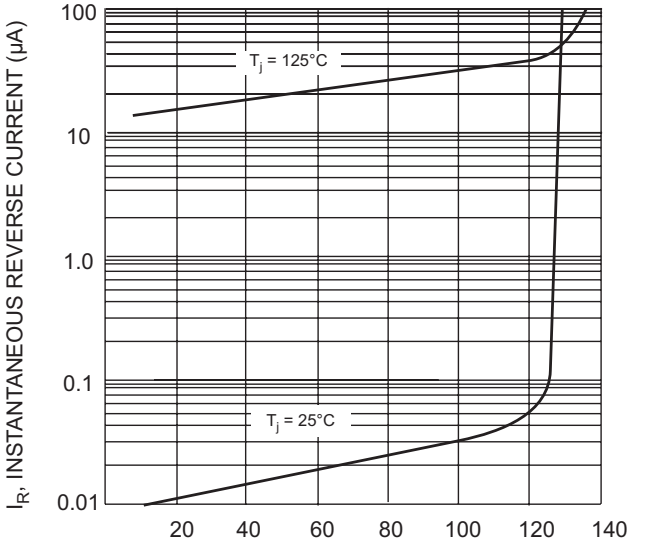
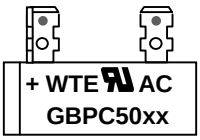


Fig. 5 Typical Reverse Characteristics (per element)

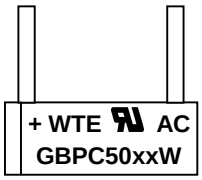
MARKING INFORMATION

GBPC



WTE = Manufacturer's Logo
GBPC50xx = Device Number
xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16
Polarity = As Marked on Body

GBPC-W



WTE = Manufacturer's Logo
GBPC50xxW = Device Number
xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16
Polarity = As Marked on Body

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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Email: sales@wontop.com
Internet: http://www.wontop.com

We power your everyday.

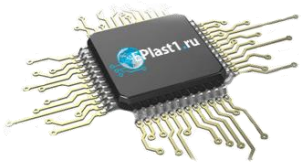
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- 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;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- 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.



Как с нами связаться

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