


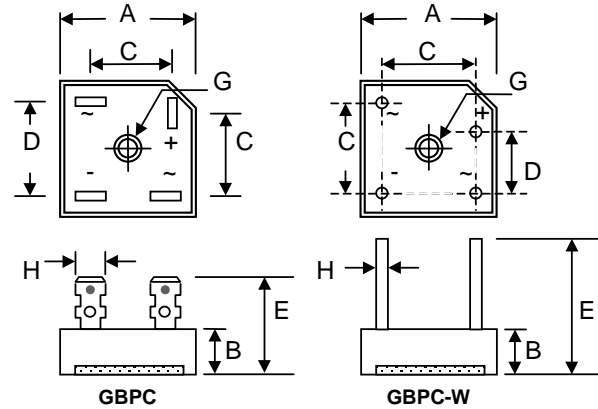
40A GLASS PASSIVATED HIGH CURRENT SINGLE-PHASE BRIDGE RECTIFIER

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		GBPC-W	
	Low Profile / Standard	Low Profile / Standard	Low Profile / Standard	Low Profile / Standard
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	GBPC40										Unit
		00	01	02	04	06	08	10	12	14	16	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	1200	1400	1600	V
Working Peak Reverse Voltage	V _{RWM}											
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	40										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400										A
Forward Voltage per leg @ _{I_F} = 20A	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 ² t Rating for Fusing (t < 8.3ms)	I ² t	660										A ² s
Typical Junction Capacitance (Note 1)	C _j	400										pF
Typical Thermal Resistance per leg (Note 2)	R _{θJC}	1.4										°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 102 x 117mm Al. finned plate.

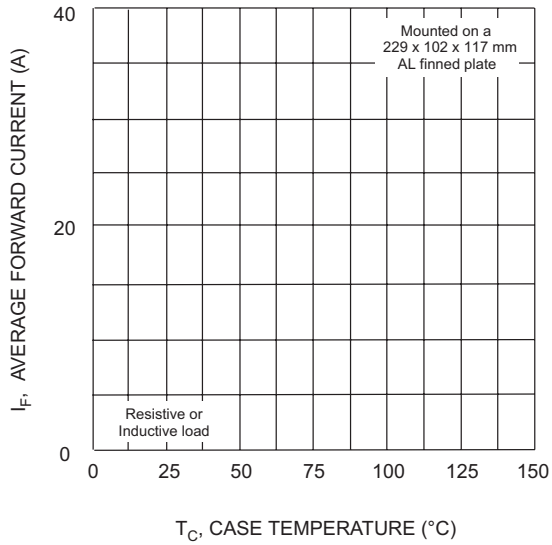


Fig. 1 Forward Current Derating Curve

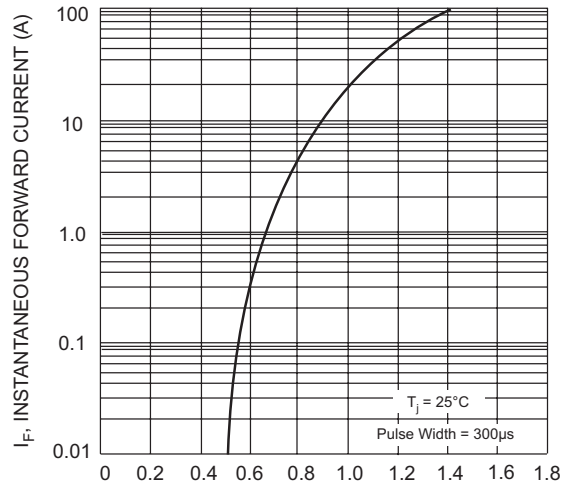


Fig. 2 Typical Forward Characteristics (per element)

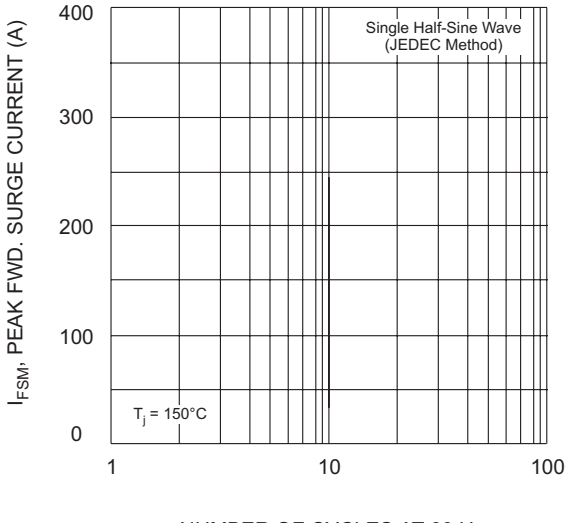


Fig. 3 Max Non-Repetitive Surge Current

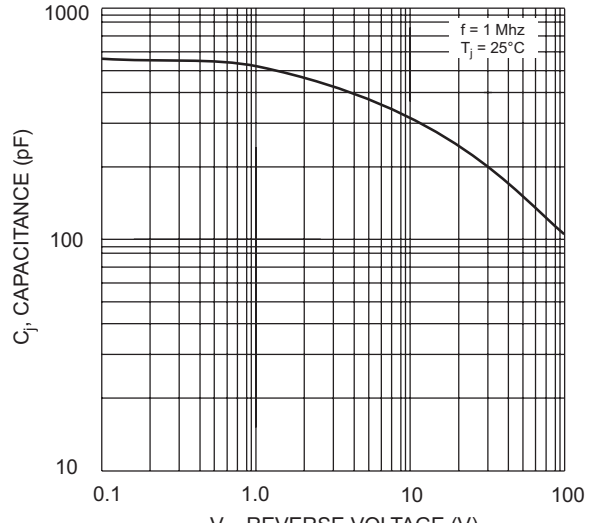


Fig. 4 Typical Junction Capacitance (per element)

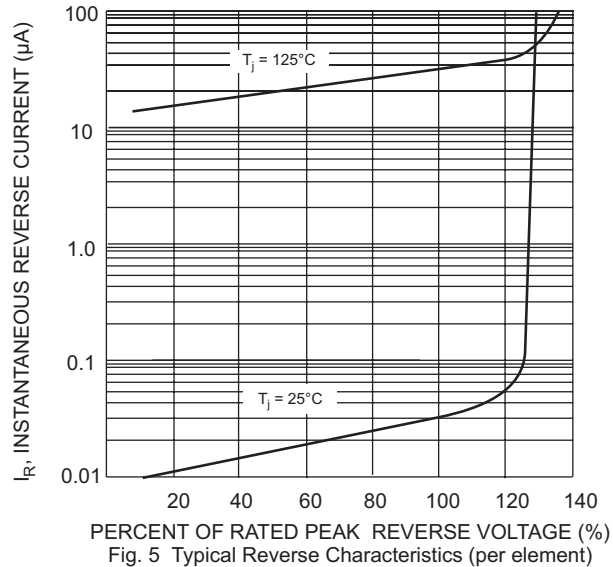
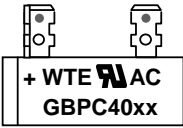



Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

GBPC	GBPC-W
 <p>WTE = Manufacturer's Logo GBPC40xx = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>	 <p>WTE = Manufacturer's Logo GBPC40xxW = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>

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
GBPC4000	Square Bridge	50 Units/Box
GBPC4000W	Square Bridge	50 Units/Box
GBPC4001	Square Bridge	50 Units/Box
GBPC4001W	Square Bridge	50 Units/Box
GBPC4002	Square Bridge	50 Units/Box
GBPC4002W	Square Bridge	50 Units/Box
GBPC4004	Square Bridge	50 Units/Box
GBPC4004W	Square Bridge	50 Units/Box
GBPC4006	Square Bridge	50 Units/Box
GBPC4006W	Square Bridge	50 Units/Box
GBPC4008	Square Bridge	50 Units/Box
GBPC4008W	Square Bridge	50 Units/Box
GBPC4010	Square Bridge	50 Units/Box
GBPC4010W	Square Bridge	50 Units/Box
GBPC4012	Square Bridge	50 Units/Box
GBPC4012W	Square Bridge	50 Units/Box
GBPC4014	Square Bridge	50 Units/Box
GBPC4014W	Square Bridge	50 Units/Box
GBPC4016	Square Bridge	50 Units/Box
GBPC4016W	Square Bridge	50 Units/Box

- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
- To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBPC4000-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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