

GBP4005A THRU GBP410A

GBP 4.0 AMP Plastic-Encapsulate Bridge Rectifier

GBP Plastic-Encapsulate Bridge Rectifier

● Features

- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

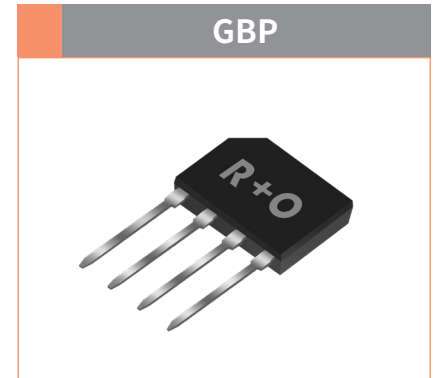
Reverse Voltage
50-1000 V
Forward Current
4.0 Ampere

● Applications

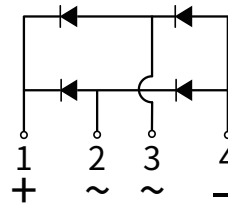
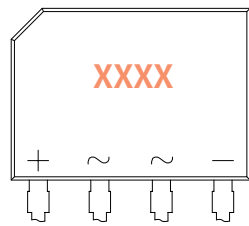
General purpose 1 phase Bridgerectifier applications

● Mechanical Data

- Case: GBP
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



● Function Diagram



● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBP4005A	GBP401A	GBP402A	GBP404A	GBP406A	GBP408A	GBP410A
Device marking code			GBP4005A	GBP401A	GBP402A	GBP404A	GBP406A	GBP408A	GBP410A
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	4.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	135						
Rating for fusing (t=8.3ms, Ta=25°C)	I^2t	A ² S	75.63						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C/W	45						
	$R_{\theta J-L}$	°C/W	10						

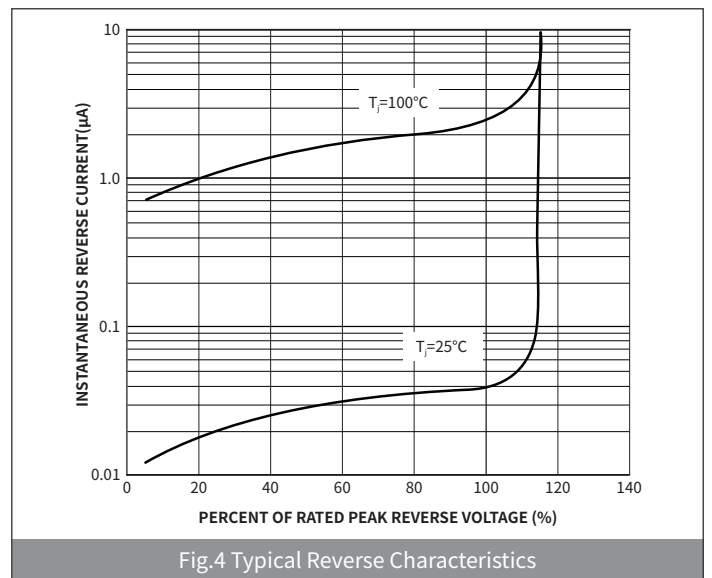
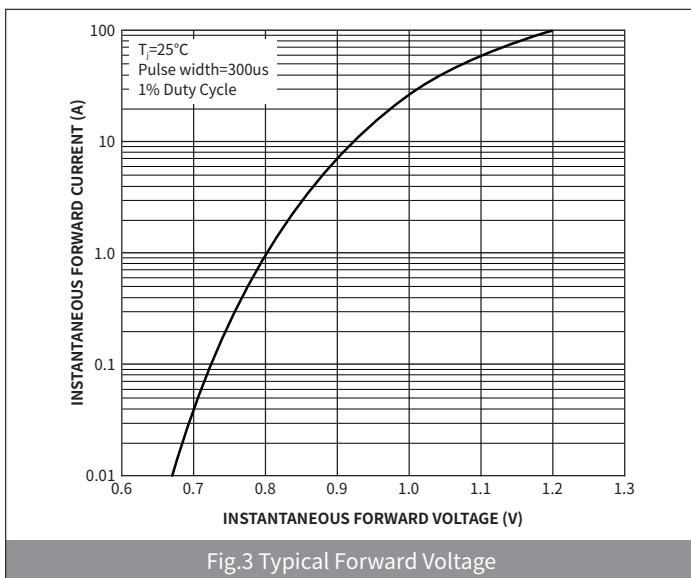
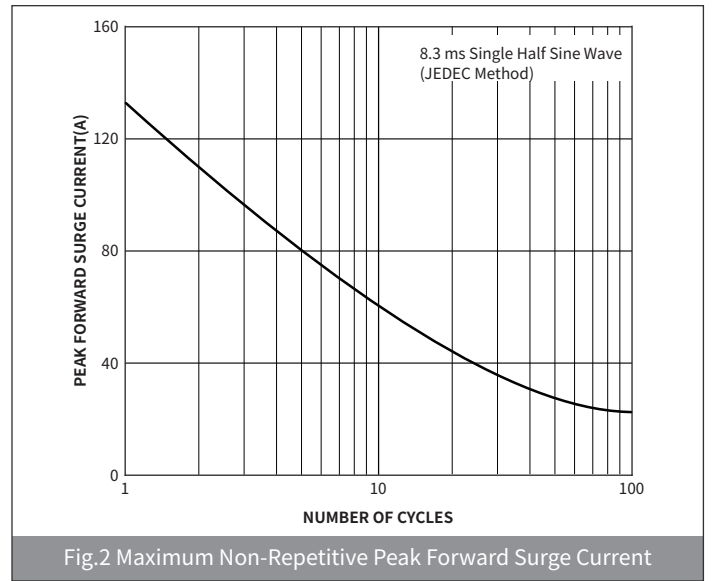
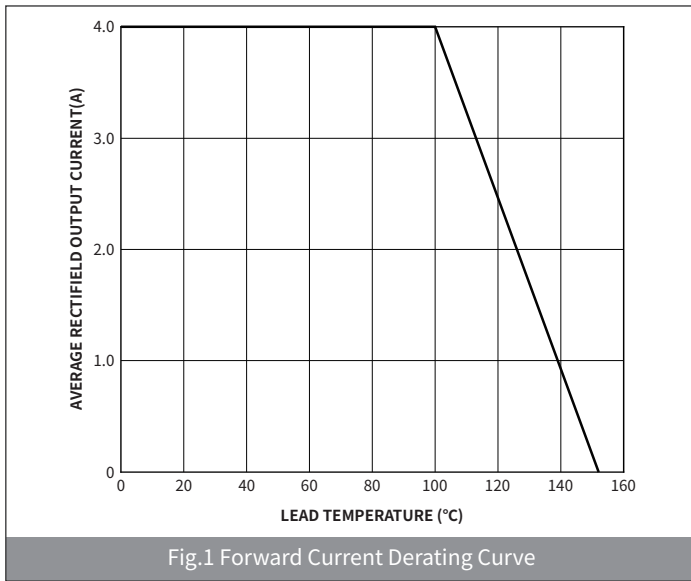
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● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	GBP4005A	GBP401A	GBP402A	GBP404A	GBP406A	GBP408A	GBP410A
Maximum instantaneous forward voltage	$I_F=4.0A$	V_F	V							1.1
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	μA							10
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}								1000
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF							35

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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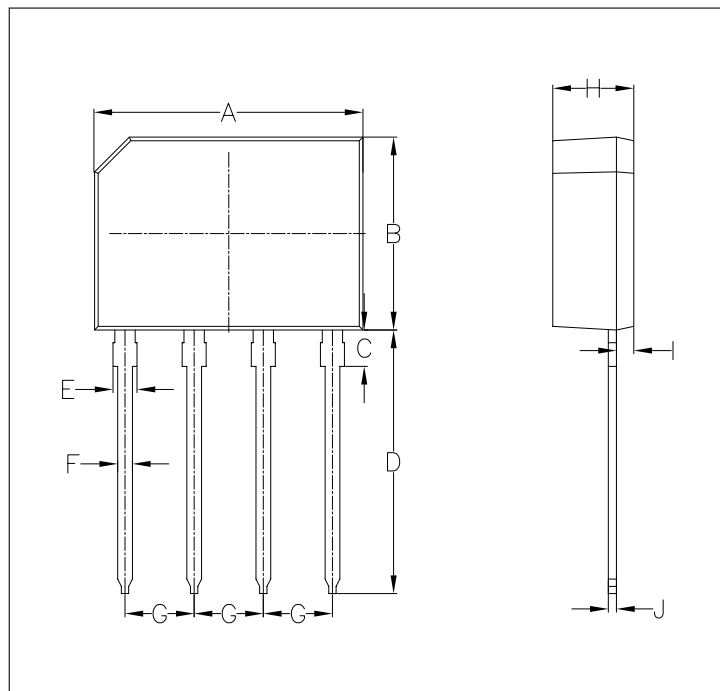
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● Ordering Information

PACKAGE	UNIT WEIGHT(g)	BOX(pcs)	CARTON(pcs)
GBP	1.25	500	5000

● Package Outline Dimensions (GBP)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	13.80	14.20	0.543	0.560
B	10.40	10.80	0.409	0.425
C	1.80	2.20	0.071	0.086
D	12.70	13.7	0.500	0.540
E	1.30	1.50	0.051	0.059
F	0.68	0.88	0.027	0.034
G	3.60	4.00	0.142	0.157
H	3.00	3.40	0.118	0.133
I	0.80	1.10	0.031	0.043
J	0.30	0.40	0.012	0.016



The technical drawing shows two views of the GBP package. The left view is a top-down perspective showing a rectangular package with four leads extending downwards. Dimension lines are labeled A (width), B (height), C (lead height), D (total height), E (lead thickness), F (lead width), and G (lead spacing). The right view is a side profile showing the package's thickness and lead diameter, with dimension lines labeled H (package thickness), I (lead diameter), and J (lead diameter).