

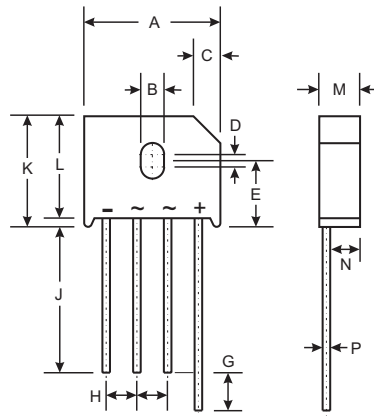
**NOT RECOMMENDED FOR NEW DESIGN**  
**USE GBU4005 - GBU410**

## Features

- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 200A Peak
- Ideal for Printed Circuit Board Applications
- Case to Terminal Isolation Voltage 1500V
- Plastic Material: UL Flammability Classification Rating 94V-0
- UL Listed Under Recognized Component Index, File Number E95060
- **Lead Free Finish, RoHS Compliant (Date Code 0514+)** (Note 3)

## Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Weight: 8.0 grams (approx.)
- Marking: Type Number



PBU		
Dim	Min	Max
A	22.70	23.70
B	3.80	4.10
C	4.20	4.70
D	1.70	2.20
E	10.30	11.30
G	4.50	6.80
H	4.80	5.80
J	25.40	—
K	—	19.30
L	16.80	17.80
M	6.60	7.10
N	4.70	5.20
P	1.20	1.30
All Dimensions in mm		

## Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	PBU 401	PBU 402	PBU 403	PBU 404	PBU 405	PBU 406	PBU 407	Unit	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V	
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ T <sub>C</sub> = 100°C	I <sub>O</sub>	4.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>					200				A
Forward Voltage (per element) @ I <sub>F</sub> = 2.0A	V <sub>FM</sub>					1.0				V
Peak Reverse Current @ T <sub>C</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>C</sub> = 100°C	I <sub>R</sub>					10 1.0				μA mA
I <sup>2</sup> t Rating for Fusing (Note 2)	I <sup>2</sup> t					166				A <sup>2</sup> s
Typical Thermal Resistance Junction to Case (Note 1)	R <sub>θJC</sub>					6.3				°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>					-65 to +150				°C

- Notes:
1. Thermal resistance junction to case mounted on heatsink.
  2. Non-repetitive, for t > 1ms and t < 8.3ms.
  3. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.

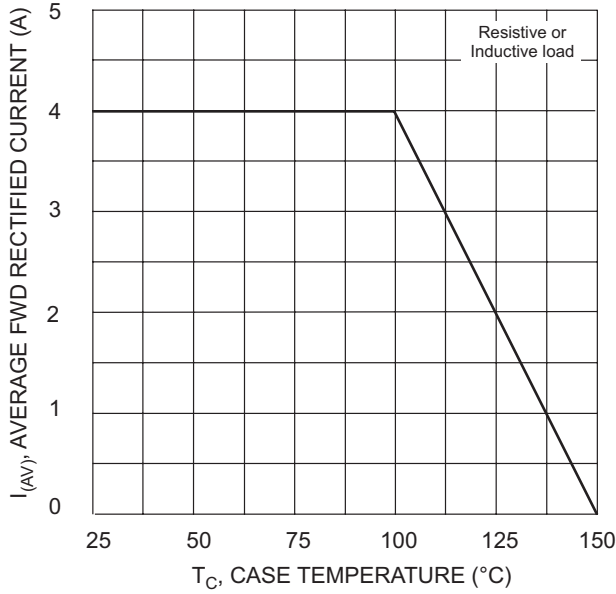


Fig. 1 Forward Current Derating Curve

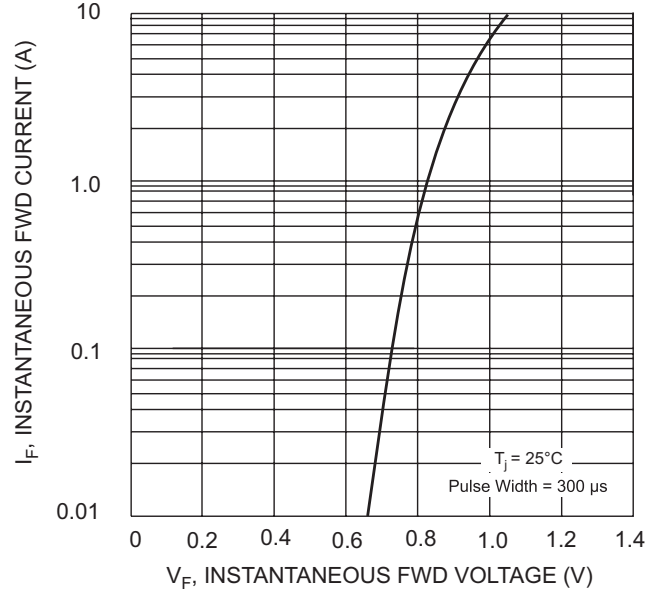


Fig. 2 Typical Forward Characteristics

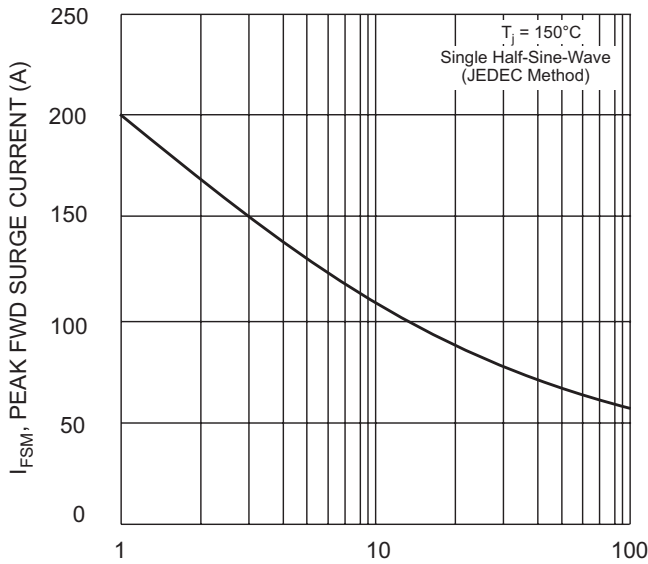


Fig. 3 Max Non-Repetitive Surge Current

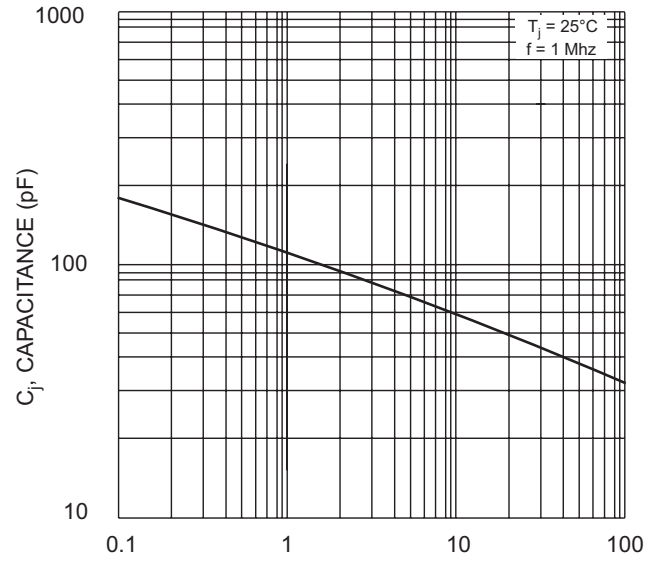


Fig. 4 Typical Junction Capacitance

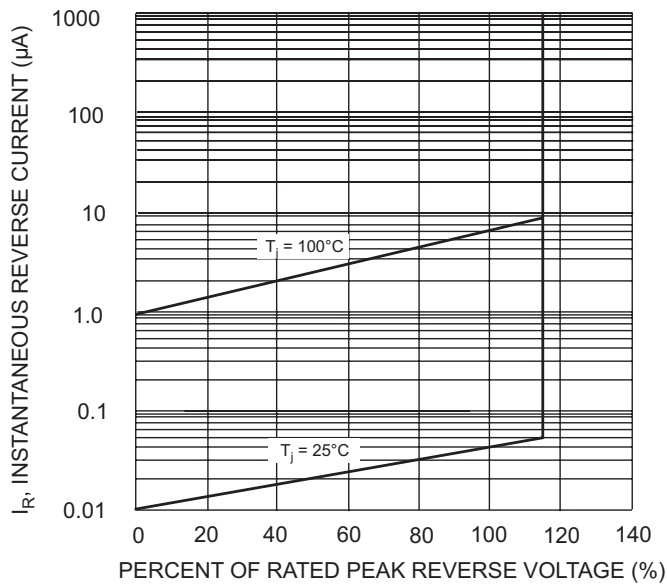


Fig. 5 Typical Reverse Characteristics

**Ordering Information** (Note 4)

Device	Packaging	Shipping
PBU401	PBU	0.5K Bulk
PBU402	PBU	0.5K Bulk
PBU403	PBU	0.5K Bulk
PBU404	PBU	0.5K Bulk
PBU405	PBU	0.5K Bulk
PBU406	PBU	0.5K Bulk
PBU407	PBU	0.5K Bulk

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap2008.pdf>

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