

PBPC601 - PBPC607

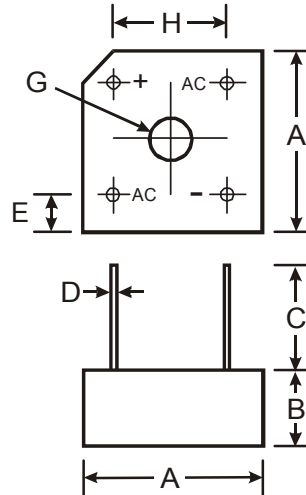
6.0A BRIDGE RECTIFIER

Features

- High Current Capability
- Surge Overload Rating to 125A Peak
- High Case Dielectric Strength of 1500V
- Ideal for Printed Circuit Board Application
- UL Listed: Recognized Component Index, File Number E94661

Mechanical Data

- Case: PBPC-6
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Ordering Information: See Page 3
- Marking: Type Number
- Weight: 3.8 grams (approximate)



PBPC-6		
Dim	Min	Max
A	14.73	15.75
B	5.84	6.86
C	19.00	—
D	1.01 \varnothing	Typical
E	1.70	3.20
G	Hole for #6 screw	
	3.60 \varnothing	4.00 \varnothing
H	10.30	11.30
All Dimensions 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	PBPC 601	PBPC 602	PBPC 603	PBPC 604	PBPC 605	PBPC 606	PBPC 607	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V	
Average Rectified Output Current (Note 1) @ T _C = 50°C	I _O					6.0				A
(Note 2) @ T _C = 50°C						4.0				
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}					125				A
Forward Voltage (per element) @ I _F = 3.0A	V _{FM}					1.1				V
Peak Reverse Current @ T _C = 25°C	I _R					10				μ A
at Rated DC Blocking Voltage (per element) @ T _C = 100°C						1.0				
I ² t Rating for Fusing (t < 8.3ms) (Note 3)	I ² t					64				A ² s
Typical Total Capacitance (Note 4)	C _T					55				pF
Typical Thermal Resistance Junction to Case (per element)	R _{θJC}					12.5				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}					-65 to +125				°C

- Notes:
1. Mounted on metal chassis.
 2. Mounted on PC board FR-4 material.
 3. Non-repetitive, for t > 1.0ms and < 8.3ms.
 4. Per element, measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

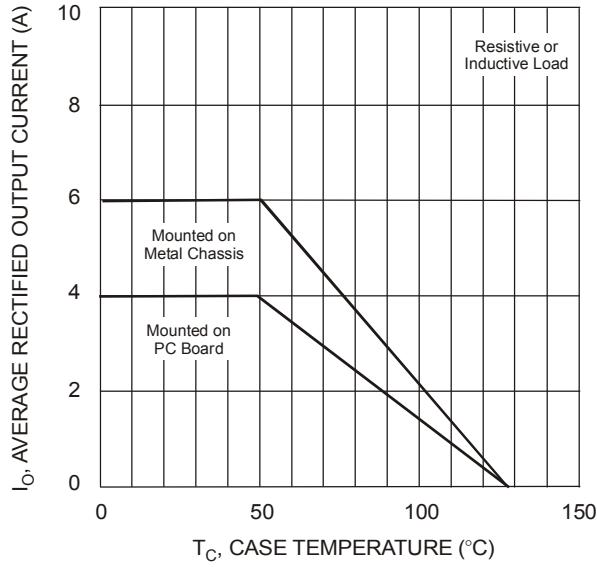


Fig. 1 Forward Current Derating Curve

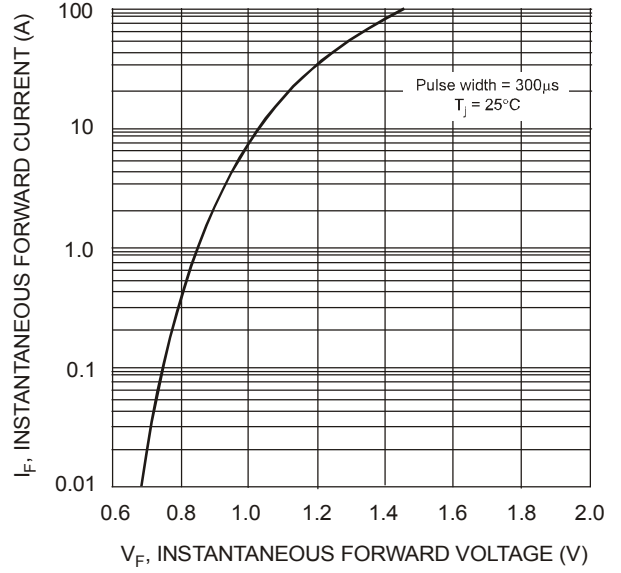


Fig. 2 Typical Forward Characteristics

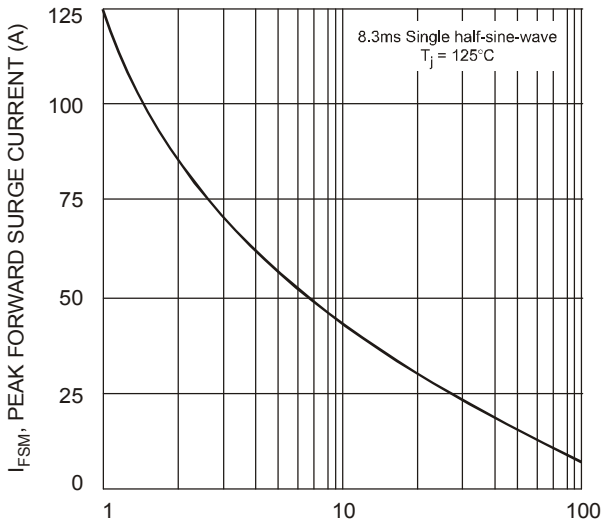


Fig. 3 Peak Forward Surge Current

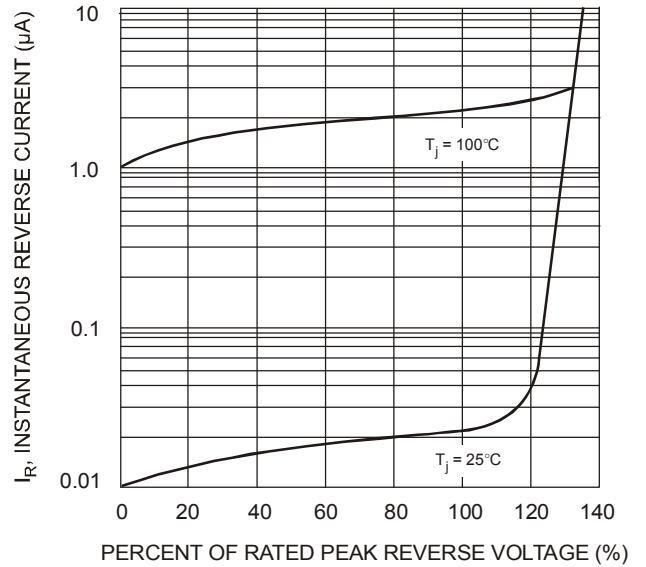


Fig. 4 Typical Reverse Characteristics

Ordering Information (Note 5)

Device	Packaging	Shipping
PBPC601	PBPC-6	200/Box
PBPC602	PBPC-6	200/Box
PBPC603	PBPC-6	200/Box
PBPC604	PBPC-6	200/Box
PBPC605	PBPC-6	200/Box
PBPC606	PBPC-6	200/Box
PBPC607	PBPC-6	200/Box

Note: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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