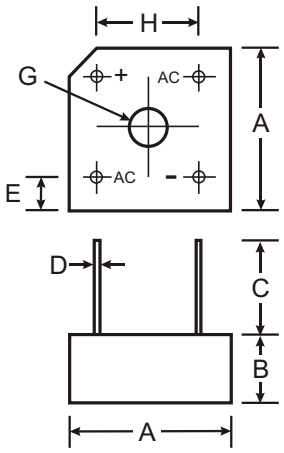
PBPC601 - PBPC607

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



PBPC-6		
Dim	**Min**	**Max**
A	14.73	15.75
B	5.84	6.86
C	19.00	
D	1.01	Typical
E	1.70	3.20
G	Hole for #6 screw	
	3.60	4.00
H	10.30	11.30
All Dimensions in mm		

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 Last Page
- Marking: Type Number
- Weight: 3.8 grams (approximate)

Maximum Ratings and Electrical Characteristics @ T_A = 25 C unless otherwise specified

Single phase, 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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ T_C = 50 C (Note 2) @ T_C = 50 C	I_O	6.0 4.0							A
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 at Rated DC Blocking Voltage (per element) @ T_C = 100 C	I_R	10 1.0							A mA
I^2t Rating for Fusing (t < 8.3ms) (Note 3)	I^2t	64							A^2s
Typical Total Capacitance (Note 4)	C_T	55							pF
Typical Thermal Resistance Junction to Case (per element)	R_{JC}	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 f = 1.0MHz and applied reverse voltage of V_R = 4.0V DC.

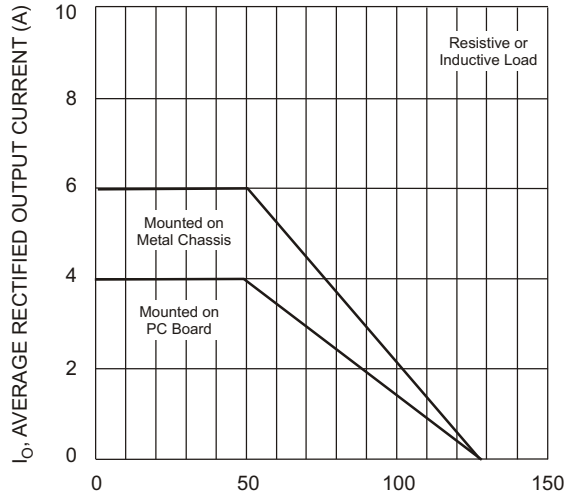


Fig. 1 Forward Current Derating Curve

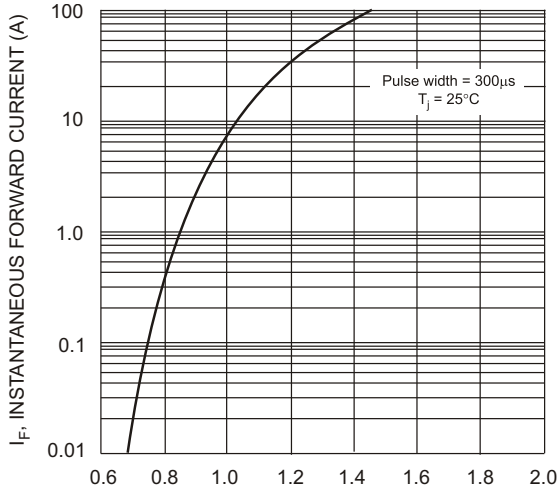


Fig. 2 Typical Forward Characteristics

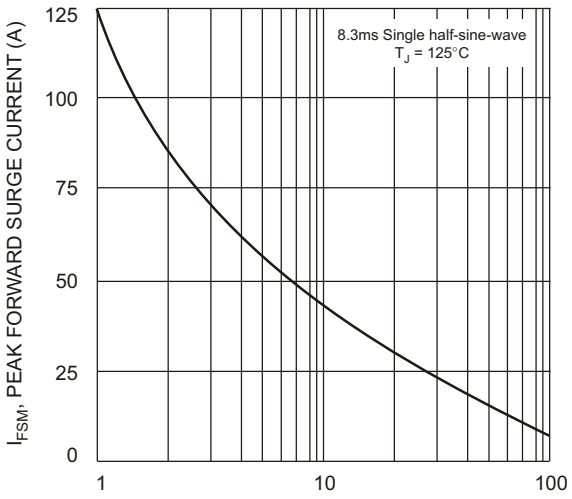


Fig. 3 Peak Forward Surge Current

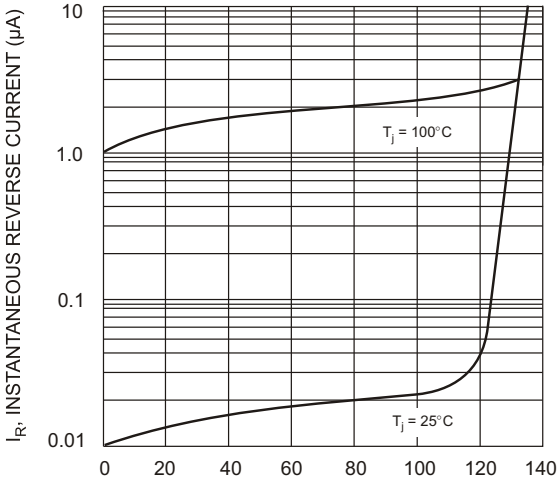


Fig. 4 Typical Reverse Characteristics

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

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