PBPC1001 - PBPC1007

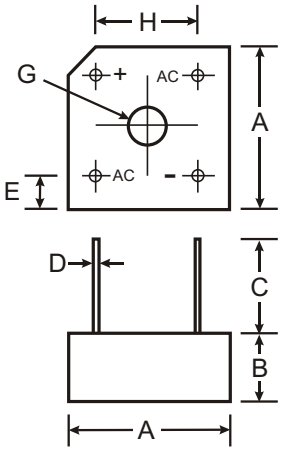
10A BRIDGE RECTIFIER

Features

- High Current Capability
- Surge Overload Rating to 150A Peak
- High Case Dielectric Strength of 1500V
- Ideal for Printed Circuit Board Application
- UL Listed Under Recognized Component Index, File Number E94661

Mechanical Data

- Case: PBPC-8
- 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)



PBPC-8		
Dim	**Min**	**Max**
A	18.54	19.56
B	6.35	7.60
C	22.20	—
D	1.27	Typical
E	5.33	7.37
G	3.60	4.00
H	12.70 Typical	
J	2.38 X 45° Typical	
All Dimensions in mm		

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 1001	PBPC 1002	PBPC 1003	PBPC 1004	PBPC 1005	PBPC 1006	PBPC 1007	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	10 8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Forward Voltage (per element) @ I_F = 5.0A	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							μA mA
I^2t Rating for Fusing (t<8.3ms) (Note 3)	I^2t	64							A^2s
Typical Total Capacitance, per element (Note 4)	C_T	110							pF
Typical Thermal Resistance Junction to Case (per element)	R_{JC}	7.5							°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.

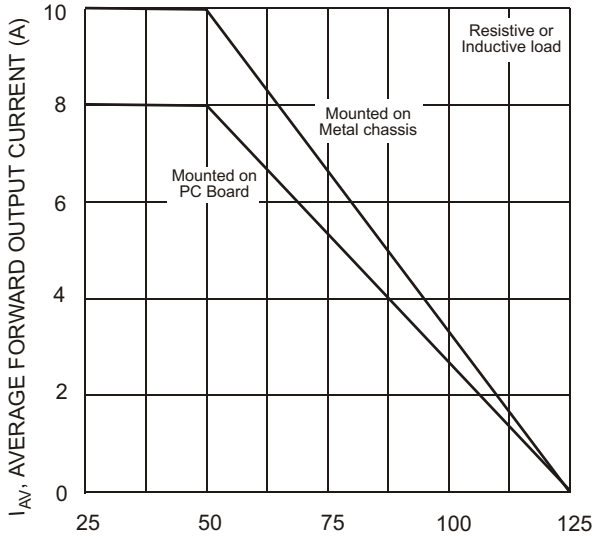


Fig. 1 Forward Current Derating Curve

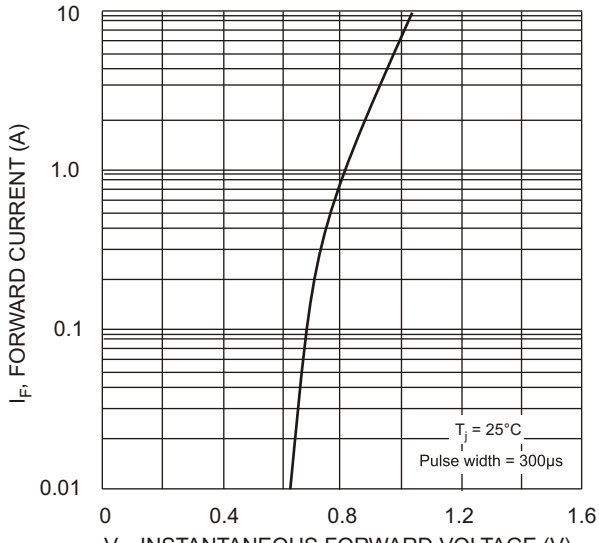


Fig. 2 Typical Forward Characteristics, per element

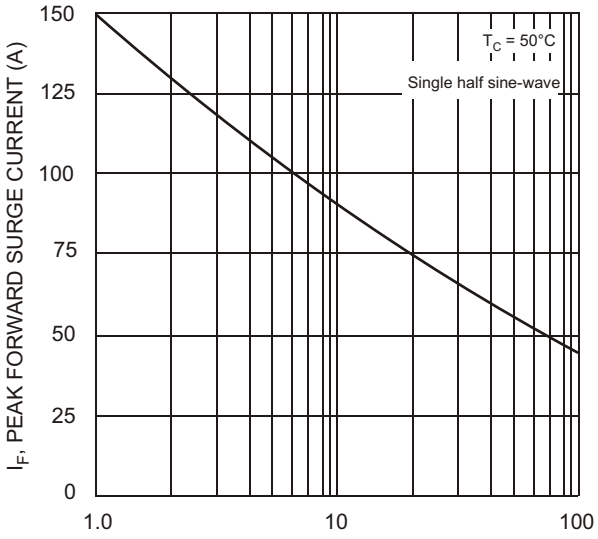


Fig. 3 Typical Reverse Characteristics

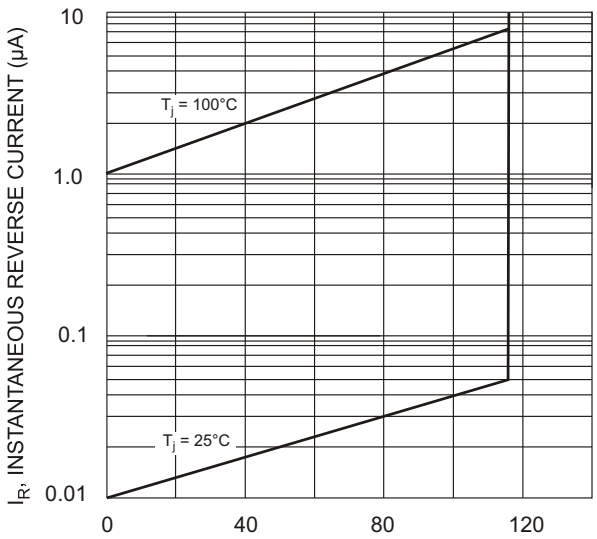


Fig. 4 Typical Reverse Characteristics, per element

Ordering Information (Note 5)

Device	Packaging	Shipping
PBPC1001	PBPC-8	150/Box
PBPC1002	PBPC-8	150/Box
PBPC1003	PBPC-8	150/Box
PBPC1004	PBPC-8	150/Box
PBPC1005	PBPC-8	150/Box
PBPC1006	PBPC-8	150/Box
PBPC1007	PBPC-8	150/Box

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

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