### **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

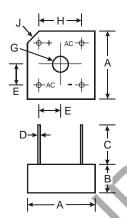
Mounting: Through Hole for #6 Screw

Mounting Torque: 5.0 Inch-pounds Maximum

Ordering Information: See Page 2

Marking: Type Number

Weight: 3.8 grams (approximate)



| PBPC-8               |                    |         |  |  |  |
|----------------------|--------------------|---------|--|--|--|
| Dim                  | Min                | Max     |  |  |  |
| Α                    | 18.54              | 19.56   |  |  |  |
| В                    | 6.35               | 7.60    |  |  |  |
| C                    | 22.20              | _       |  |  |  |
| D                    | 1.27 Ø             | Typical |  |  |  |
| ш                    | 5.33               | 7.37    |  |  |  |
| G                    | 3.60 ∅             | 4.00 ∅  |  |  |  |
| Н                    | 12.70 Typical      |         |  |  |  |
| 7                    | 2.38 X 45° Typical |         |  |  |  |
| All Dimensions in mm |                    |         |  |  |  |

## **Maximum Ratings and Electrical Characteristics**

@TA = 25°C unless otherwise specified

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

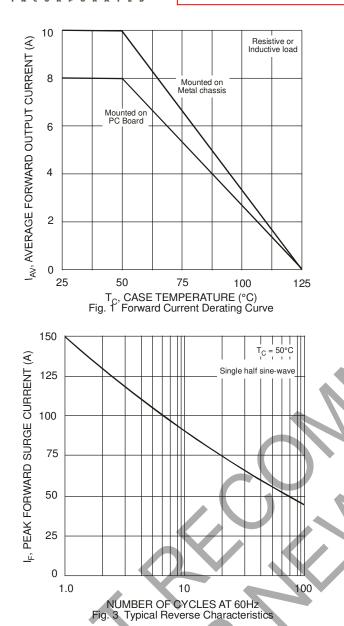
| Characteristic   | Symbol   | PBPC<br>1001 | PBPC<br>1002 | PBPC<br>1003 | PBPC<br>1004 | PBPC<br>1005 | PBPC<br>1006 | PBPC<br>1007 | Unit             |
|--|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                         | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | ٧                |
| RMS Reverse Voltage  | V <sub>R(RMS)</sub>                                    | 35           | 70           | 140          | 280          | 420          | 560          | 700          | V                |
| Average Rectified Output Current (Note 1) @ $T_C = 50^{\circ}$ C (Note 2) @ $T_C = 50^{\circ}$ C               | A 10 3000  |              |              |              | 10<br>8.0    |              |              |              | Α                |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single Half Sine-Wave Superimposed on Rated Load            | IFSM   |              |              |              | 150          |              |              |              | Α                |
| Forward Voltage (per element) $@ I_F = 5.0$  | V <sub>FM</sub>  |              |              |              | 1.1          |              |              |              | V                |
| Peak Reverse Current @ $T_C = 25^{\circ}$ C at Rated DC Blocking Voltage (per element) @ $T_C = 100^{\circ}$ C | l In   |              |              |              | 10<br>1.0    |              |              |              | μA<br>mA         |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms) (Note 3   | l <sup>2</sup> t                                       |              |              |              | 64           |              |              |              | A <sup>2</sup> s |
| Typical Total Capacitance, per element (Note 4   | C <sub>T</sub>   |              |              |              | 110          |              |              |              | pF               |
| Typical Thermal Resistance Junction to Case (per element)  | $R_{	heta JC}$   |              |              |              | 7.5          |              |              |              | °C/W             |
| Operating and Storage Temperature Range  |  | -65 to +125  |              |              |              |              | ô            |              |                  |

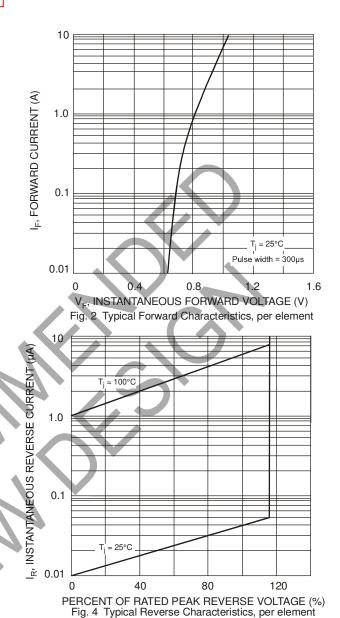
Notes:

- 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.

# NOT RECOMMENDED FOR NEW DESIGN





## 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, go to our website at http://www.diodes.com/datasheets/ap02008.pdf.



# NOT RECOMMENDED FOR NEW DESIGN

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