

# **PBPC301 - PBPC307**

### 3.0A BRIDGE RECTIFIER

### **Features**

High Current Capability
Surge Overload Rating to 50A 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-3

Case Material: Molded Plastic. UL Flammability

Classification 94V-0

Moisture Sensitivity: Level 1 per J-STD-020C

Terminals: Plated Leads Solderable per MIL-STD-202,

Method 208

Polarity: Marked on Body

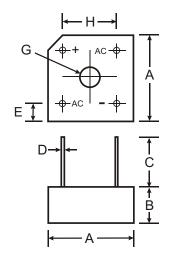
Mounting: Through Hole for Screw

Mounting Torque: 5.0 Inch-pounds Maximum

Ordering Information: See Last Page

Marking: Type Number

Weight: 3.8 grams (approximate)



PBPC-3					
Dim	Min	Max			
Α	14.73	15.75			
В	5.84	6.86			
С	19.00	_			
D	0.76	Typical			
Е	1.70	3.20			
G	Hole for screw				
	3.60	4.00			
Н	10.30	11.30			
All Dimensions in mm					

## Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

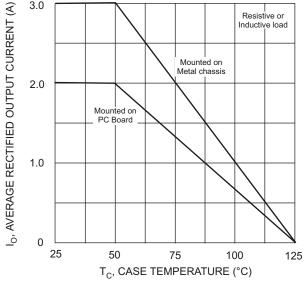
Single phase, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

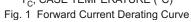
Characteristic	Symbol	PBPC 301	PBPC 302	PBPC 303	PBPC 304	PBPC 305	PBPC 306	PBPC 307	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_C = 50^{\circ}C$ (Note 2) @ $T_C = 50^{\circ}C$	lo	3.0 2.0			Α				
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load		50					Α		
Forward Voltage (per element) @ I <sub>F</sub> = 1.5A	V <sub>FM</sub>				1.2				٧
Peak Reverse Current		10 1.0					μA mA		
I <sup>2</sup> t Rating for Fusing (t<8.3ms) (Note 3)		10					A <sup>2</sup> s		
Typical Total Capacitance (Note 4)		55					pF		
Typical Thermal Resistance Junction to Case (per element)		25					°C/W		
Operating and Storage Temperature Range		-65 to +125					°C		

Notes: 1. Mounted on metal chassis.

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







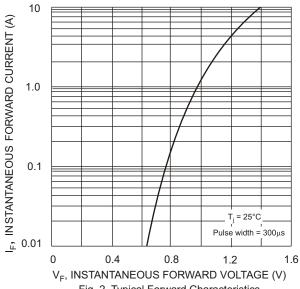
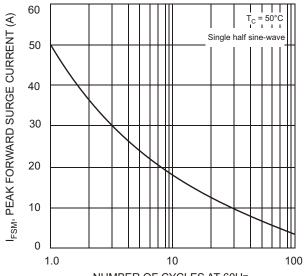
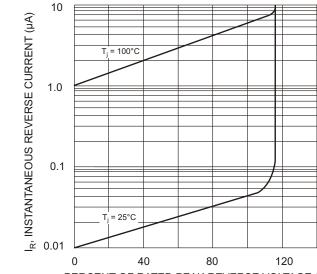


Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60Hz Fig. 3 Peak Forward Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 4 Typical Reverse Characteristics



### Ordering Information (Notes 5 & 6)

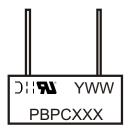
Device*	Packaging	Shipping
PBPC30x	PBPC-3	200/Box

<sup>\*</sup> x = Device type, e.g. PBPC301 or PBPC302, etc.

Notes

- 5. For Packaging Details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.
- 6. For lead free terminal plating part number, please add "-F" suffix to part number above. Example: PBPC304-F.

### **Marking Information**



The Manufacturers' code marking

UL Recognized Component Mark

XXX = Product type marking code, ex: PBPC307

YWW = Date code marking

Y = Last digit of year ex: 2 for 2002

WW = Week code 01 to 52

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