PBPC301 - PBPC307

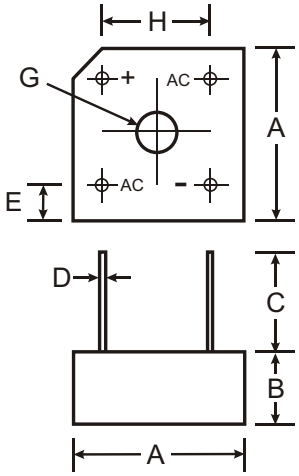
3.0A BRIDGE RECTIFIER

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**
A	14.73	15.75
B	5.84	6.86
C	19.00	—
D	0.76	Typical
E	1.70	3.20
G	Hole for screw	
	3.60	4.00
H	10.30	11.30
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 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_{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	3.0 2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							A
Forward Voltage (per element) @ I_F = 1.5A	V_{FM}	1.2							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	10							A^2s
Typical Total Capacitance (Note 4)	C_T	55							pF
Typical Thermal Resistance Junction to Case (per element)	R_{JC}	25							°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 > 1ms and < 8.3ms.
4. Per element, measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

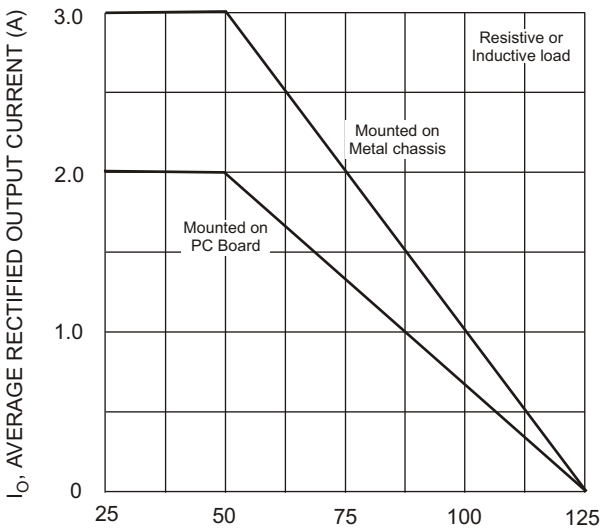


Fig. 1 Forward Current Derating Curve

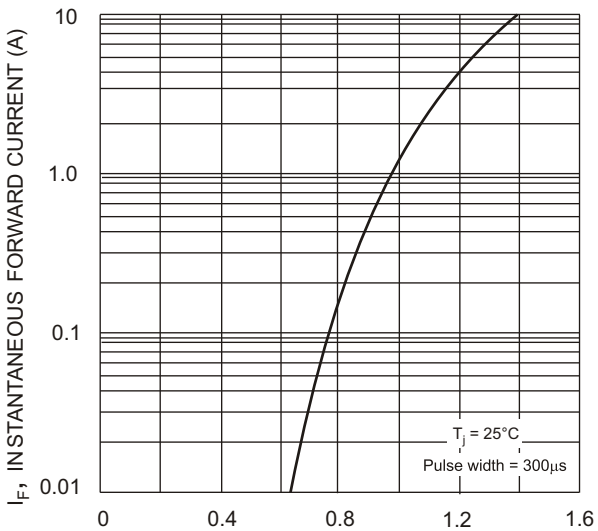


Fig. 2 Typical Forward Characteristics

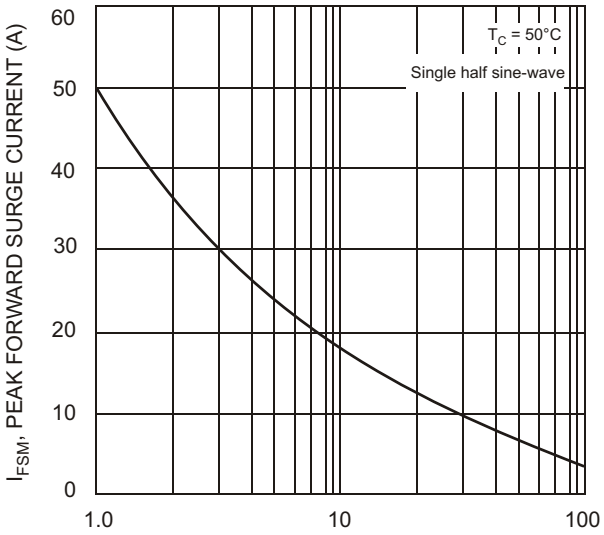


Fig. 3 Peak Forward Surge Current

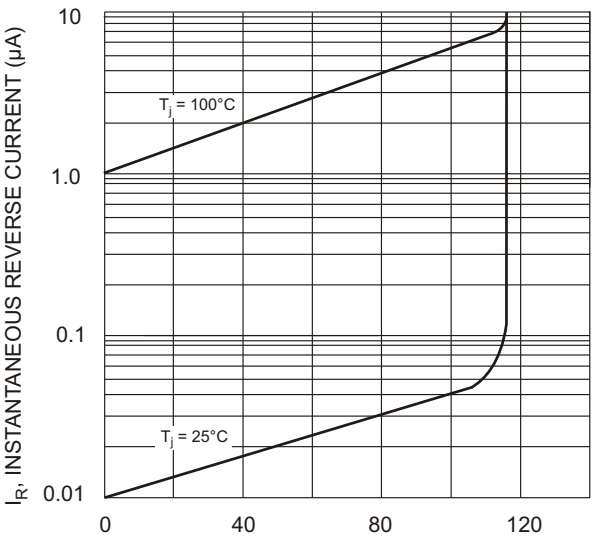


Fig. 4 Typical Reverse Characteristics

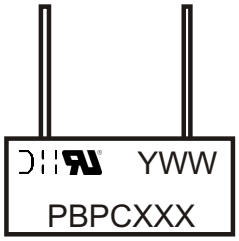
Ordering Information (Notes 5 & 6)

Device*	Packaging	Shipping
PBPC30x	PBPC-3	200/Box

* 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



= 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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