



Micro Commercial Components



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**PB305  
 THRU  
 PB310**

## Features

- Mounting Hole For #6 Screw
- UL Recognized File # E165989
- Any Mounting Position
- Surge Rating Of 50 Amps
- Low Forward Voltage Drop
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Mounting Torque: 4.5 in-lbs Maximum

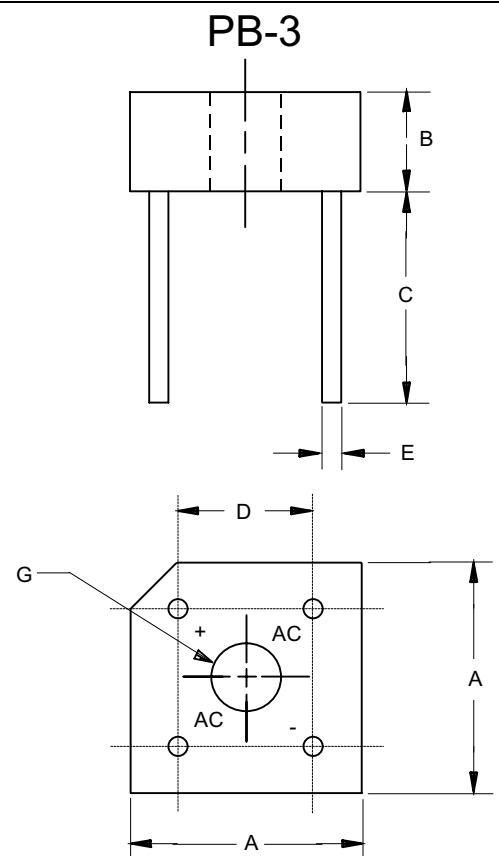
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| PB305              | PB305          | 50V                                    | 35V                 | 50V                         |
| PB31               | PB31           | 100V                                   | 70V                 | 100V                        |
| PB32               | PB32           | 200V                                   | 140V                | 200V                        |
| PB34               | PB34           | 400V                                   | 280V                | 400V                        |
| PB36               | PB36           | 600V                                   | 420V                | 600V                        |
| PB38               | PB38           | 800V                                   | 560V                | 800V                        |
| PB310              | PB310          | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                          |   |
|---|-------------|--------------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 3.0A                     | $T_C = 50^\circ\text{C}$  |
| Peak Forward Surge Current                              | $I_{FSM}$   | 50A                      | 8.3ms, half sine  |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.2V                     | $I_{FM} = 1.5\text{A}$ per element;<br>$T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>1 mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$           |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

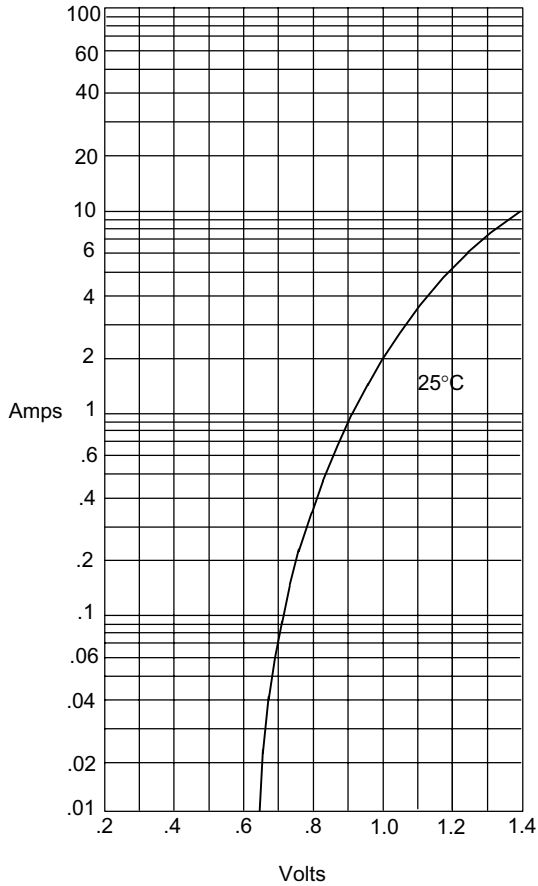
**3 Amp Single Phase  
 Bridge Rectifier  
 50 to 1000 Volts**



| DIM | DIMENSIONS |      |       |       | NOTE    |
|-----|------------|------|-------|-------|---------|
|     | INCHES     |      | MM    |       |         |
| A   | .580       | .620 | 14.69 | 15.71 | 2PL     |
| B   | .230       | .270 | 5.84  | 6.86  |         |
| C   | .750       | ---  | 19.00 | ---   |         |
| D   | .405       | .445 | 10.29 | 11.31 | 2PL     |
| E   | .028       | .032 | 0.71  | 0.81  | 4PL/TYP |
| G   | .142       | .158 | 3.60  | 4.00  | ∅       |

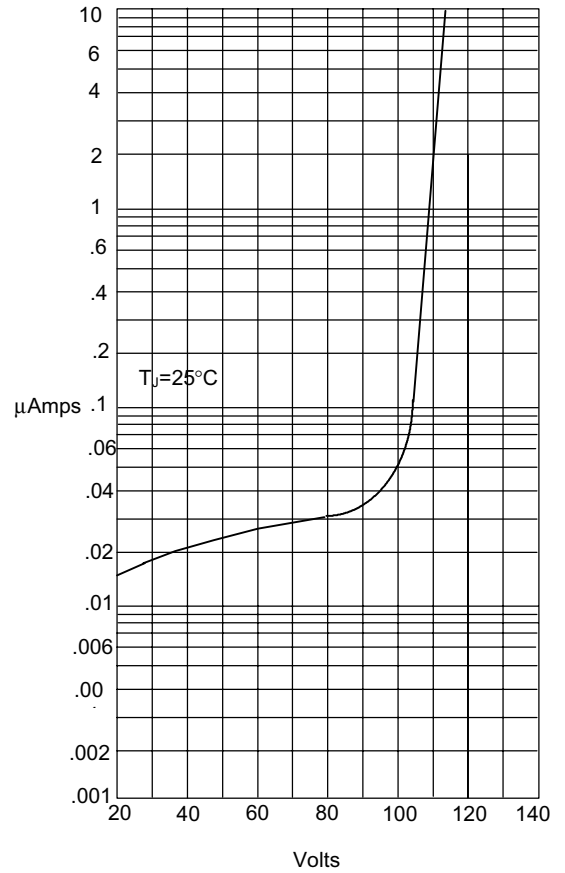
# PB305 thru PB310

Figure 1  
Typical Forward Characteristics



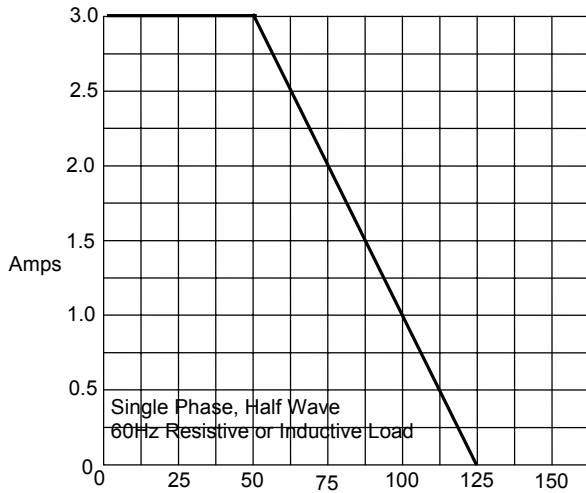
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



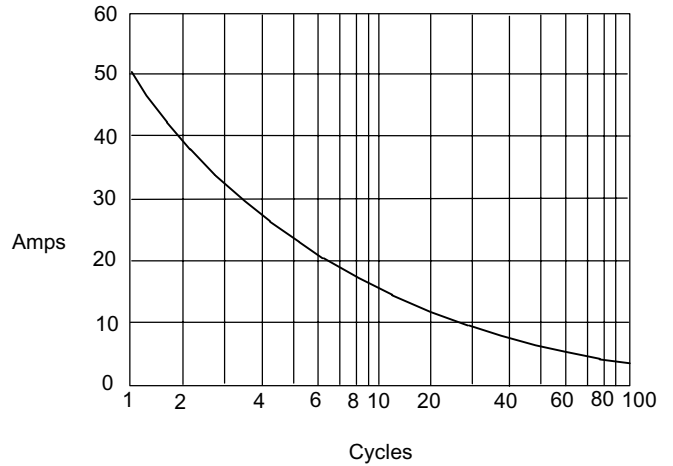
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Case Temperature - °C

Figure 4  
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles



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### Ordering Information

|                            |                          |
|----------------------------|--------------------------|
| Device<br>(Part Number)-BP | Packing<br>Bulk;1.6k/Ctn |
|----------------------------|--------------------------|

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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