



Micro Commercial Components

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# PB605 THRU PB610

## Features

- Glass Passivated chip
- Low Forward Voltage
- Any Mounting Position
- Silver Plated Copper Leads
- Surge Overload Rating Of 150 Amps
- UL Recognized File # E165989
- Case Material: Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

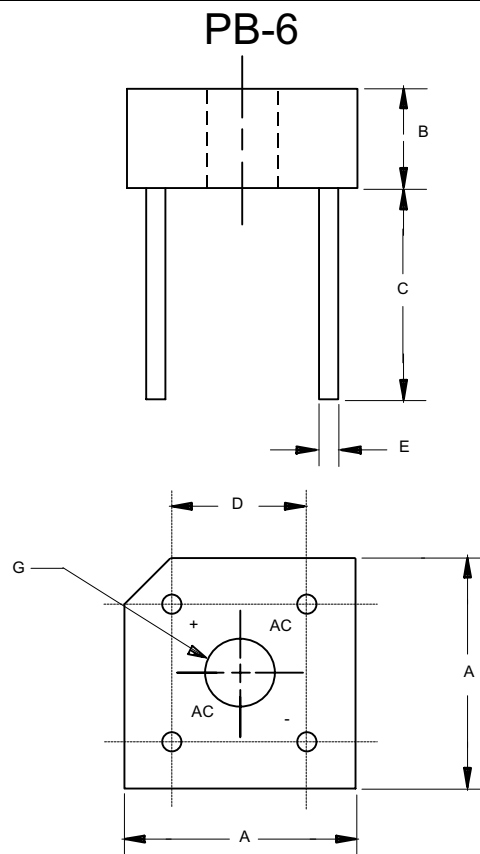
| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| PB605                    | PB605          | 50V                                    | 35V                 | 50V                         |
| PB61                     | PB61           | 100V                                   | 70V                 | 100V                        |
| PB62                     | PB62           | 200V                                   | 140V                | 200V                        |
| PB64                     | PB64           | 400V                                   | 280V                | 400V                        |
| PB66                     | PB66           | 600V                                   | 420V                | 600V                        |
| PB68                     | PB68           | 800V                                   | 560V                | 800V                        |
| PB610                    | PB610          | 1000v                                  | 700V                | 1000v                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                    |                                                        |
|---------------------------------------------------------|-------------|--------------------|--------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 6.0A               | $T_J = 50^\circ\text{C}$                               |
| Peak Forward Surge Current                              | $I_{FSM}$   | 150A               | 8.3ms, half sine                                       |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.10V              | $I_{FM} = 3.0A$ ;<br>$T_J = 25^\circ\text{C}$ (Note 2) |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu$ 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  
2. Pulse Test: Pulse Width 300usec, Duty Cycle 1%

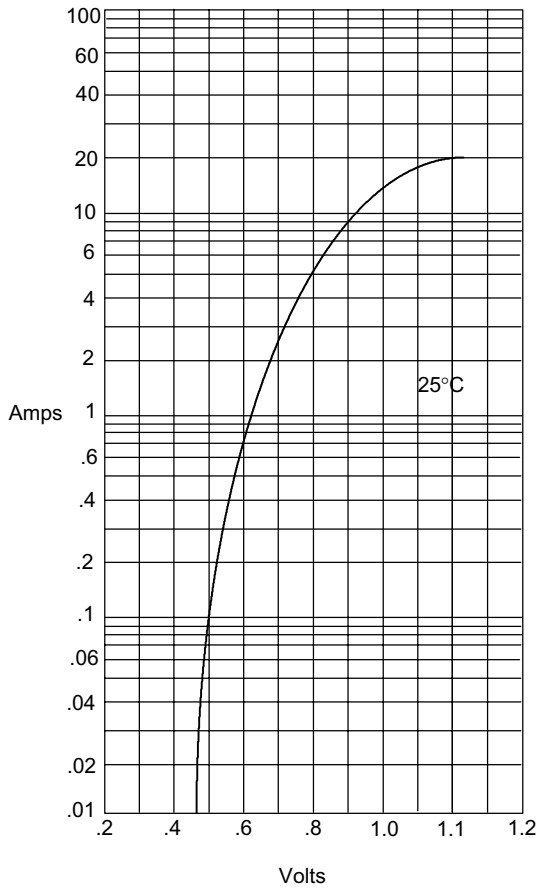
## 6 Amp Glass Passivated Rectifier 50 to 1000 Volts



| DIMENSIONS |        |      |       |       |         |
|------------|--------|------|-------|-------|---------|
| DIM        | INCHES |      | MM    |       | NOTE    |
|            | MIN    | MAX  | MIN   | MAX   |         |
| A          | .578   | .618 | 14.69 | 15.71 | 2PL     |
| B          | .230   | .270 | 5.84  | 6.86  |         |
| C          | .750   | ---  | 19.10 | ---   |         |
| D          | .405   | .444 | 10.30 | 11.30 | 2PL     |
| E          | .038   | .042 | 0.97  | 1.07  | 4PL/TYP |
| G          | .145   | ---  | 3.70  | ---   | Ø       |

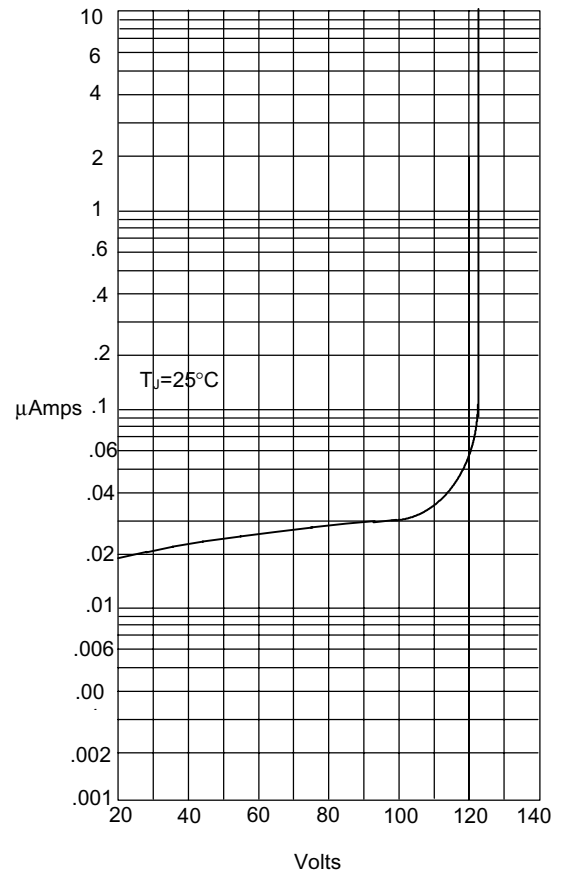
## PB605 thru PB610

Figure 1  
Typical Forward Characteristics



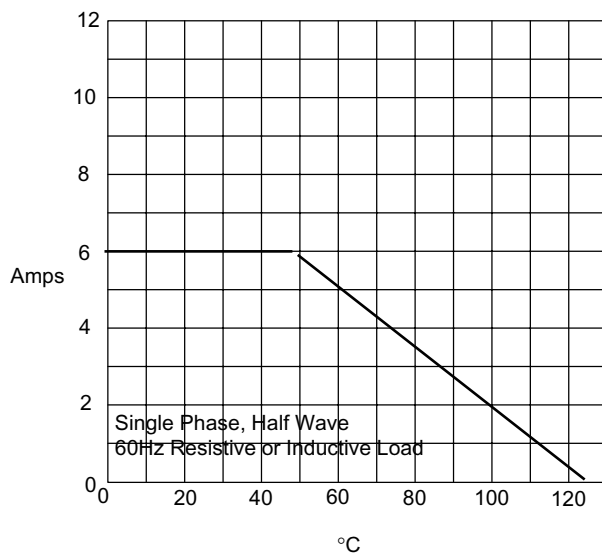
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



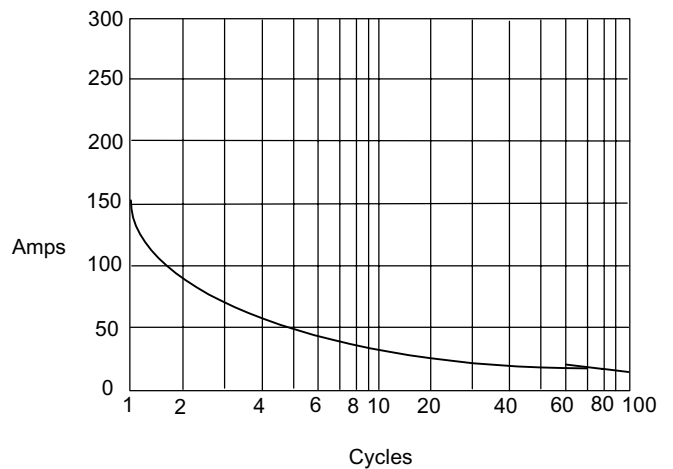
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



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

Figure 4  
Peak Forward Surge Current



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



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### Ordering Information

|                  |                 |
|------------------|-----------------|
| Device           | Packing         |
| (Part Number)-BP | Bulk;200pcs/Box |

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