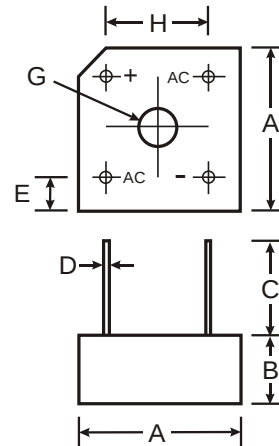


### Features

- Σ Ideal for Printed Circuit Board
- Σ Surge Overload Rating of 125A Peak
- Σ Low forward Voltage Drop
- Σ The Plastic Material Carries U/L Recognition 94V-0
- Σ **Lead Free Finish, RoHS Compliant (Date Code 0514+) (Note 1)**

### Mechanical Data

- Σ Case: PB-6, Plastic
- Σ Terminals: Leads Solderable per MIL-STD-202, Method 208
- Σ Polarity: Symbols Marked on Body
- Σ Weight: 4.56 grams



| PB-6                 |             |       |
|----------------------|-------------|-------|
| Dim                  | Min         | Max   |
| A                    | 14.73       | 15.75 |
| B                    | 5.84        | 6.86  |
| C                    | 19          | —     |
| D                    | 1.0 Typical |       |
| E                    | 1.7         | 2.7   |
| G                    | 3.6Ø        | 4.0Ø  |
| H                    | 10.3        | 11.3  |
| All Dimensions in mm |             |       |

### Maximum Ratings and Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.  
Single phase, 60Hz, resistive or inductive load.

| Characteristic                                                                                                                      | Symbol          | PB605       | PB61 | PB62 | PB64 | PB66 | PB68 | PB610 | Unit                |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|------|------|------|------|------|-------|---------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                                              | $V_{RRM}$       | 50          | 100  | 200  | 400  | 600  | 800  | 1000  | V                   |
| Maximum RMS Bridge Input Voltage                                                                                                    | $V_{RSM}$       | 35          | 70   | 140  | 280  | 420  | 560  | 700   | V                   |
| Maximum DC Blocking Voltage                                                                                                         | $V_{DC}$        | 50          | 100  | 200  | 400  | 600  | 800  | 1000  | V                   |
| Maximum Average Forward Rectified Output Current<br>@ $T_{HS}$ (Heatsink Temp) = 50°C                                               | $I_{AV}$        | 6.0         |      |      |      |      |      |       | A                   |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)                                   | $I_{FSM}$       | 125         |      |      |      |      |      |       | A                   |
| Maximum Forward Voltage Drop per element at 3.0Adc                                                                                  | $V_F$           | 1.1         |      |      |      |      |      |       | V                   |
| Maximum dc Reverse Current at rated<br>dc Blocking Voltage per element<br>@ $T_A = 25^\circ\text{C}$<br>@ $T_A = 100^\circ\text{C}$ | $I_R$           | 10<br>1     |      |      |      |      |      |       | $\mu\text{A}$<br>mA |
| Typical Thermal Resistance                                                                                                          | $R_{\theta JC}$ | 8           |      |      |      |      |      |       | °C/W                |
| Operating and Storage Temperature Range                                                                                             | $T_J, T_{STG}$  | -65 to +150 |      |      |      |      |      |       | °C                  |

Notes: 1. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied where applicable, see EU Directive Annex Notes 5 and 7.

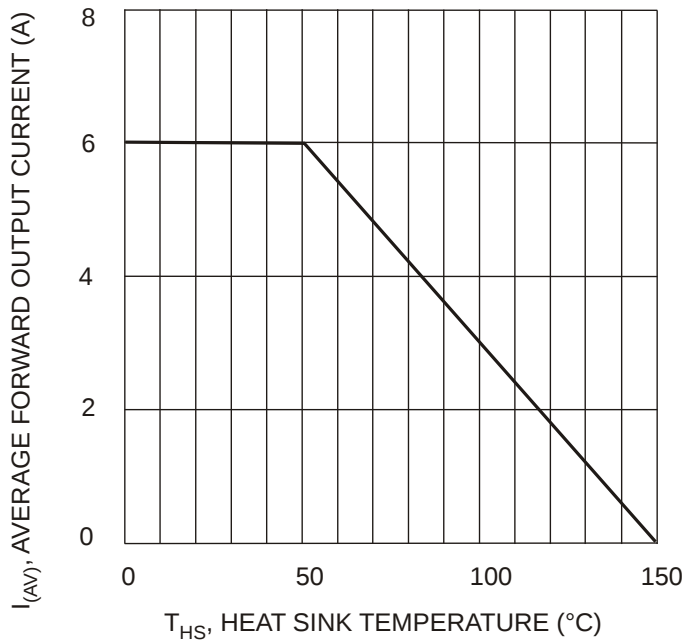


Fig. 1, Derating Curve for Output Rectified Current

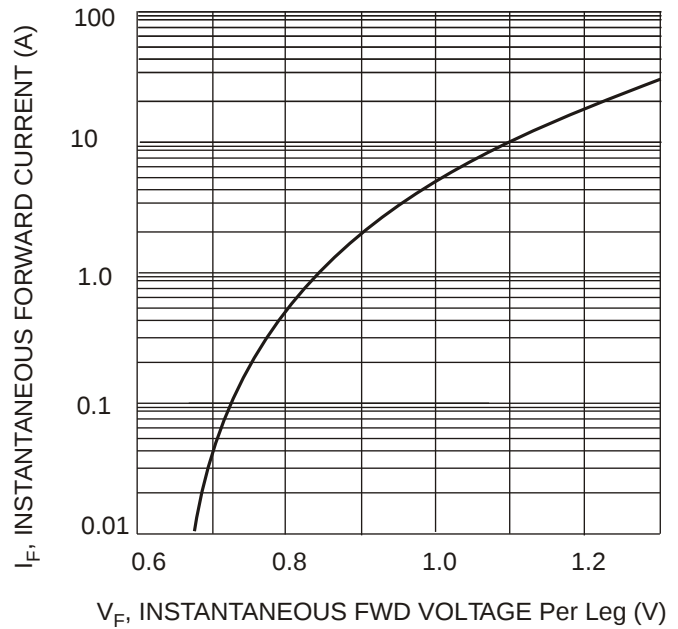


Fig. 2, Typical Forward Characteristics

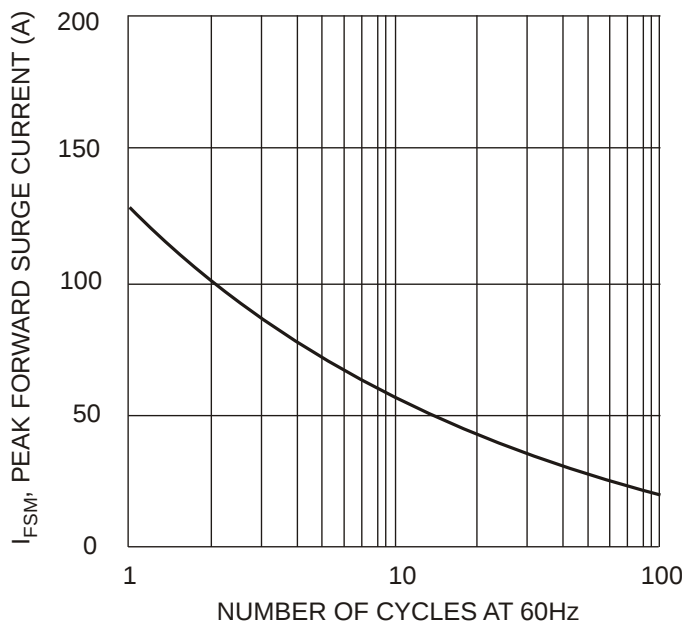


Fig. 3, Maximum Forward Surge Current

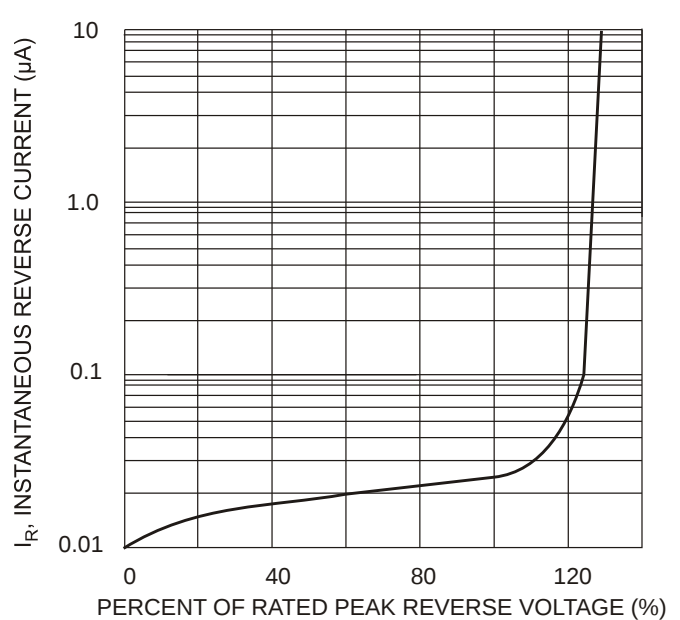


Fig. 4, Typical Reverse Characteristics

**NOT RECOMMENDED FOR NEW DESIGNS -  
USE PBPC601-PBPC607**

**Ordering Information** (Note 2)

| Device | Packaging | Shipping |
|--------|-----------|----------|
| PB605  | PB-6      | 200 Bulk |
| PB61   | PB-6      | 200 Bulk |
| PB62   | PB-6      | 200 Bulk |
| PB64   | PB-6      | 200 Bulk |
| PB66   | PB-6      | 200 Bulk |
| PB68   | PB-6      | 200 Bulk |
| PB610  | PB-6      | 200 Bulk |

Notes: 2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

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USE PBPC601-PBPC607**