



Micro Commercial Components

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# DB101 THRU DB107

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- 4-PIN DIP Package
- Glass Passivated Diode Construction
- UL Recognized File # E165989
- High Surge Current Capability  
Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and Rating 1

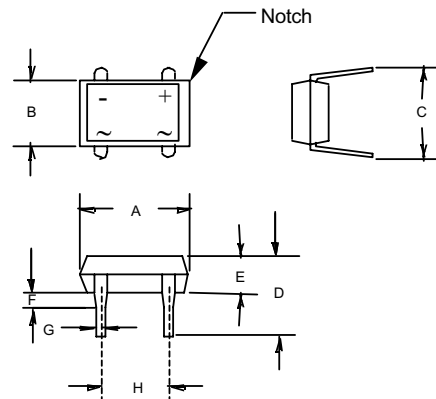
## 1 Amp Single Phase Glass Passivated Bridge Rectifier 50 to 1000 Volts

## Maximum Ratings

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

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| DB101              | DB101          | 50V                                    | 35V                 | 50V                         |
| DB102              | DB102          | 100V                                   | 70V                 | 100V                        |
| DB103              | DB103          | 200V                                   | 140V                | 200V                        |
| DB104              | DB104          | 400V                                   | 280V                | 400V                        |
| DB105              | DB105          | 600V                                   | 420V                | 600V                        |
| DB106              | DB106          | 800V                                   | 560V                | 800V                        |
| DB107              | DB107          | 1000V                                  | 700V                | 1000V                       |

### DB-1



## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |               |   |
|---|-------------|---------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 1 A           | $T_A = 40^\circ\text{C}$                              |
| Peak Forward Surge Current                              | $I_{FSM}$   | 50A           | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.1V          | $I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}$        |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10µA<br>0.5mA | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$       | 25pF          | Measured at 1.0MHz, $V_R=4.0\text{V}$                 |

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

| DIM | DIMENSIONS |      |      |      | NOTE |
|-----|------------|------|------|------|------|
|     | INCHES     |      | MM   |      |      |
|     | MIN        | MAX  | MIN  | MAX  |      |
| A   | .316       | .335 | 8.05 | 8.51 |      |
| B   | .245       | .255 | 6.20 | 6.50 |      |
| C   | .300       | .350 | 7.60 | 8.90 |      |
| D   | .236       | .299 | 6.01 | 7.60 |      |
| E   | .102       | .130 | 2.60 | 3.30 |      |
| F   | .060       |      | 1.50 |      | Typ  |
| G   | .016       | .022 | .41  | .56  | Typ  |
| H   | .195       | .205 | 5.00 | 5.20 |      |

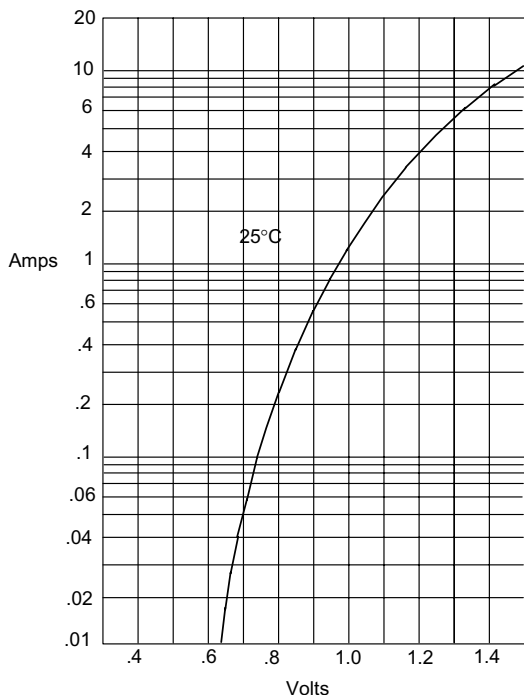
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# DB101 thru DB107



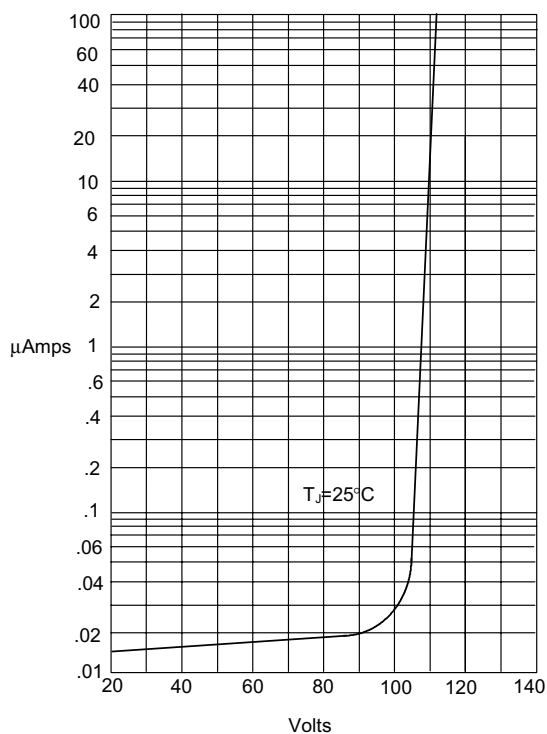
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Figure 1  
Typical Forward Characteristics



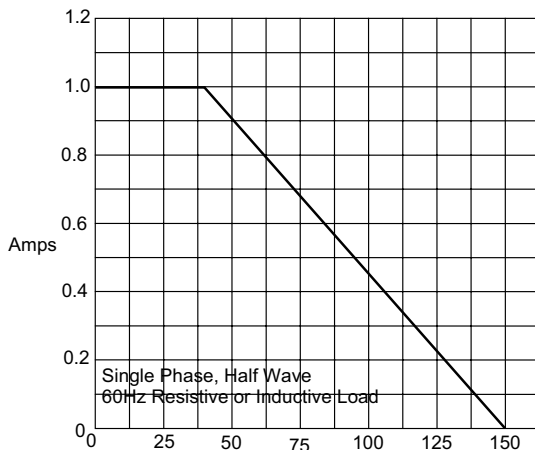
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



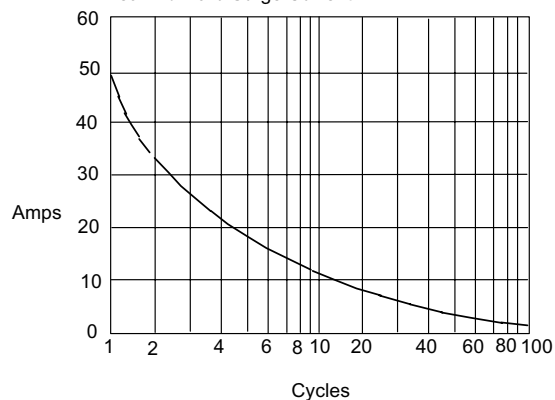
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - 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;50pcs/tube |

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