

**M·C·C**

Micro Commercial Components



Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

**DB101  
THRU  
DB107**

## Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- 4-PIN DIP Package
- Glass Passivated Diode Construction
- UL Recognized File # E165989
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Thermal Resistance : Rthja: 40C/W;RthJL:15C/W.

| 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                       |

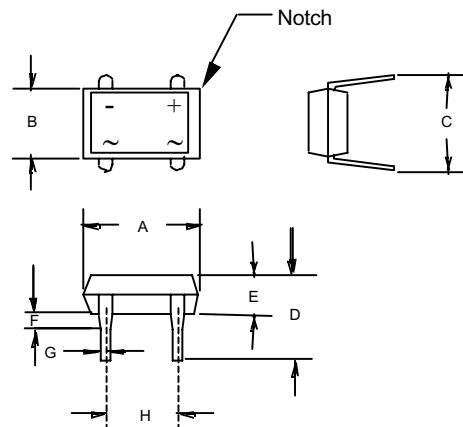
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                      |   |
|---|-------------|----------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 1 A                  | $T_A = 40^\circ C$                        |
| Peak Forward Surge Current                              | $I_{FSM}$   | 30A                  | 8.3ms, half sine                          |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.1V                 | $I_{FM} = 1.0A$ ;<br>$T_J = 25^\circ C$   |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | $10\mu A$<br>$0.5mA$ | $T_J = 25^\circ C$<br>$T_J = 125^\circ C$ |
| Typical Junction Capacitance                            | $C_J$       | 25pF                 | Measured at 1.0MHz, $V_R=4.0V$            |

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

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

**DB-1**



| DIMENSIONS |        |      |      |      | NOTE |  |
|------------|--------|------|------|------|------|--|
| DIM        | 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 |      |  |

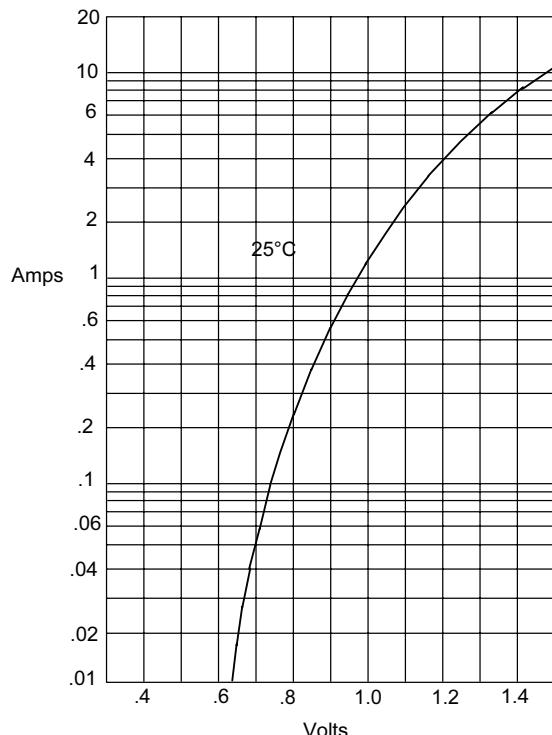
**www.mccsemi.com**

# DB101 thru DB107

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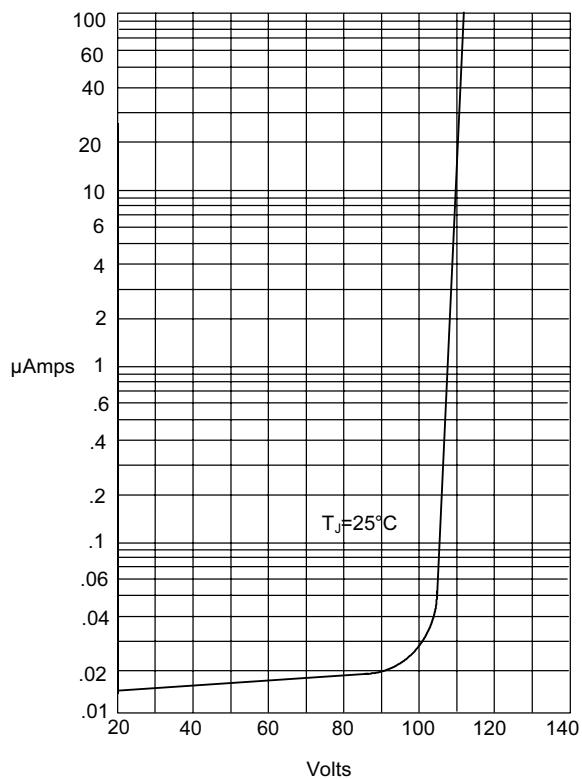
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Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



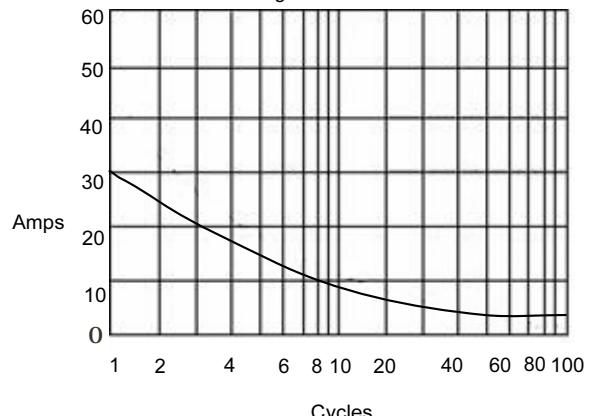
Instantaneous Reverse Leakage Current - MicroAmperesversus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Ambiente Temperature - qC

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperesversus  
Number Of Cycles At 60Hz - Cycles



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## Ordering Information :

| Device         | Packing           |
|----------------|-------------------|
| Part Number-BP | Bulk: 2.5Kpcs/Box |

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

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