

# DF005M - DF10M

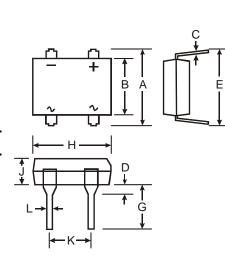
1.0A GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File
  Number E94661
- Lead Free Finish, RoHS Compliant (Date Code 0532+)
  (Note 3)

## **Mechanical Data**

- Case: DF-M
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Tin. Solder Plated Leads, Solderable per MIL-STD-202, Method 208 Image: Solderabl
- Polarity: As Marked on Case
- Marking Information: Type Number, See Page 3
- Weight: 0.38 grams (approximate)



| DF-M                 |         |      |  |  |  |  |  |
|----------------------|---------|------|--|--|--|--|--|
| Dim                  | Min Max |      |  |  |  |  |  |
| Α                    | 7.40    | 7.90 |  |  |  |  |  |
| В                    | 6.20    | 6.50 |  |  |  |  |  |
| С                    | 0.22    | 0.30 |  |  |  |  |  |
| D                    | 1.27    | 2.03 |  |  |  |  |  |
| Е                    | 7.60    | 8.90 |  |  |  |  |  |
| G                    | 3.81    | 4.69 |  |  |  |  |  |
| н                    | 8.13    | 8.51 |  |  |  |  |  |
| J                    | 2.40    | 3.40 |  |  |  |  |  |
| к                    | 5.00    | 5.20 |  |  |  |  |  |
| L                    | 0.46    | 0.58 |  |  |  |  |  |
| All Dimensions in mm |         |      |  |  |  |  |  |

# **Maximum Ratings and Electrical Characteristics**

@T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

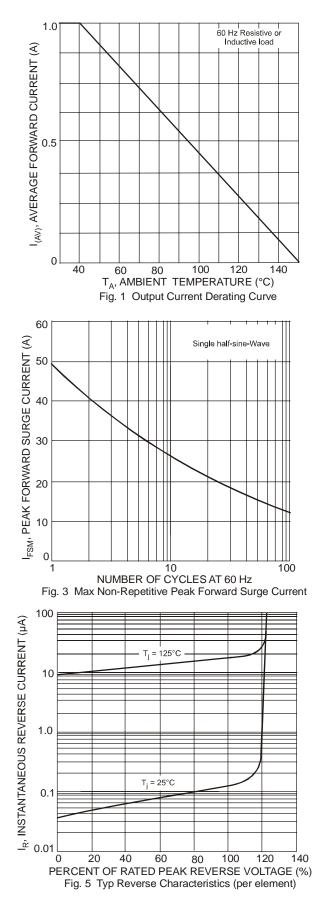
| Characteristic   |   | Symbol   | DF<br>005M | DF<br>01M | DF<br>02M | DF<br>04M | DF<br>06M | DF<br>08M | DF<br>10M | Unit |
|--|---|--|------------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage             |   | V <sub>RMM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50         | 100       | 200       | 400       | 600       | 800       | 1000      | V    |
| RMS Reverse Voltage  |   | V <sub>RMS</sub>                                       | 35         | 70        | 140       | 280       | 420       | 580       | 700       | V    |
| Average Rectified Output Current   | @ T <sub>A</sub> = 40°C                             | lo   | 1.0        |           |           |           |           | А         |           |      |
| Non-Repetitive Peak Forward Surge Current, 8.3 m<br>Single Half Sine-Wave Superimposed on Rated Lo |   | I <sub>FSM</sub>                                       |            |           |           | 50        |           |           |           | А    |
| Forward Voltage (per element)  | @ I <sub>F</sub> = 1.0 A                            | V <sub>FM</sub>  | 1.1        |           |           |           | V         |           |           |      |
| Peak Reverse Current<br>at Rated DC Blocking Voltage (per element)                                 | @ T <sub>A</sub> = 25°C<br>@ T <sub>A</sub> = 125°C | I <sub>RM</sub>  | 10<br>500  |           |           |           | μA        |           |           |      |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)   |   | l <sup>2</sup> t                                       |            |           |           | 10.4      |           |           |           | A²s  |
| Typical Total Capacitance per element  | (Note 1)  | CT   | 25         |           |           |           | pF        |           |           |      |
| Typical Thermal Resistance, Junction to Ambient  | (Note 2)  | $R_{	ext{	heta}JA}$                                    | 40         |           |           |           | °C/W      |           |           |      |
| Operating and Storage Temperature Range  |   | Tj, T <sub>STG</sub>                                   |            |           | -6        | 65 to +15 | 50        |           |           | °C   |

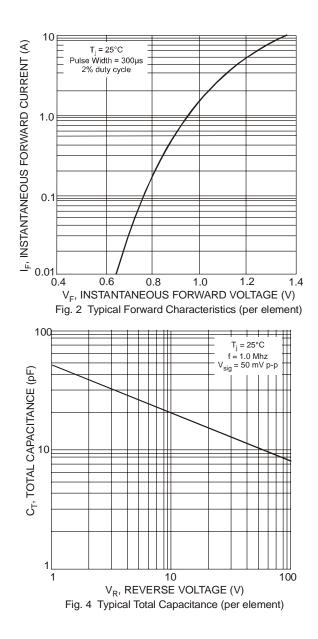
Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal Resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.

3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.









Ordering Information (Note 4)

| Device* | Packaging | Shipping |  |  |
|---------|-----------|----------|--|--|
| DFxM    | DF-M      | Tube     |  |  |

\* x = Device type, e.g. DF005M or DF10M, etc.

Notes: 4. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02007.pdf.

# Marking Information



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