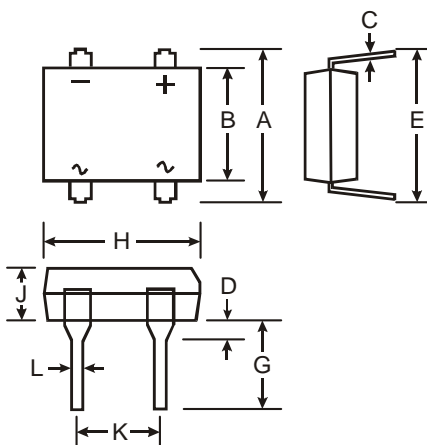


Features

- 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 (3)
- Polarity: As Marked on Case
- Marking Information: Type Number, See Page 3
- Weight: 0.38 grams (approximate)



| DF-M | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 7.40 | 7.90 |
| B | 6.20 | 6.50 |
| C | 0.22 | 0.30 |
| D | 1.27 | 2.03 |
| E | 7.60 | 8.90 |
| G | 3.81 | 4.69 |
| H | 8.13 | 8.51 |
| J | 2.40 | 3.40 |
| K | 5.00 | 5.20 |
| L | 0.46 | 0.58 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics

@T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

| Characteristic | Symbol | DF 005M | DF 01M | DF 02M | DF 04M | DF 06M | DF 08M | DF 10M | Unit |
|--|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Peak Repetitive Reverse Voltage | V _{RMM} | | | | | | | | |
| Working Peak Reverse Voltage | V _{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 580 | 700 | V |
| Average Rectified Output Current @ T _A = 40°C | I _O | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load | I _{FSM} | 50 | | | | | | | A |
| Forward Voltage (per element) @ I _F = 1.0 A | V _{FM} | 1.1 | | | | | | | V |
| Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage (per element) @ T _A = 125°C | I _{RM} | 10 500 | | | | | | | μA |
| I ² t Rating for Fusing (t<8.3ms) | I ² t | 10.4 | | | | | | | A ² s |
| Typical Total Capacitance per element (Note 1) | C _T | 25 | | | | | | | pF |
| Typical Thermal Resistance, Junction to Ambient (Note 2) | R _{θJA} | 40 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | °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 5.0mm² (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.

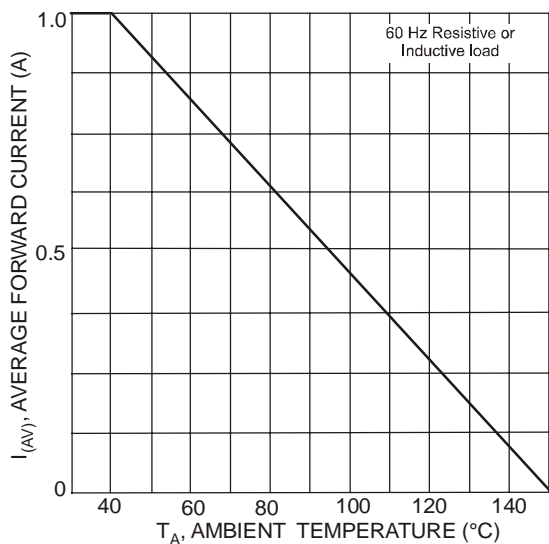


Fig. 1 Output Current Derating Curve

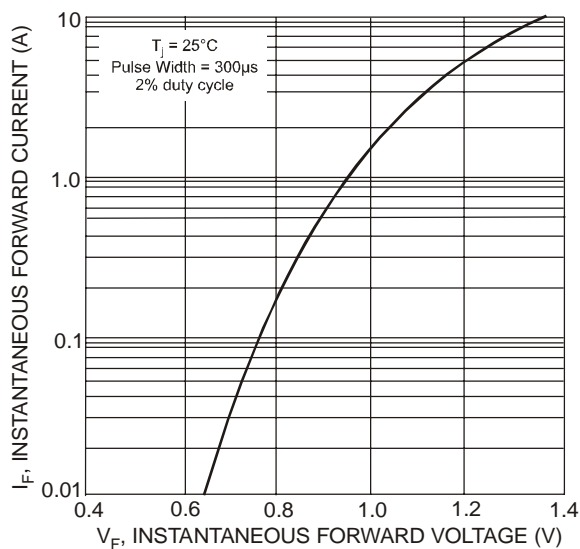


Fig. 2 Typical Forward Characteristics (per element)

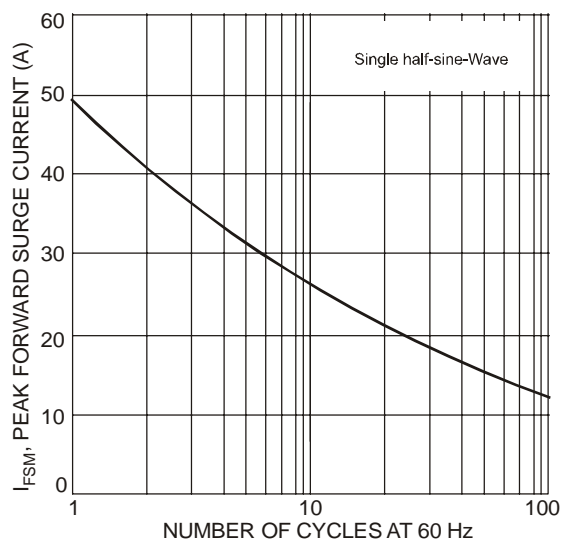


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

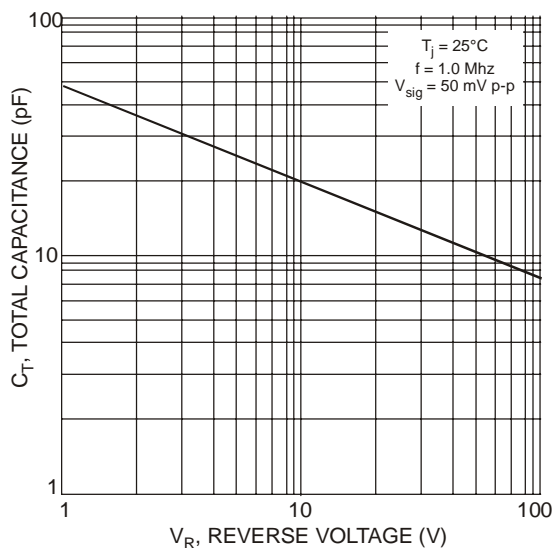


Fig. 4 Typical Total Capacitance (per element)

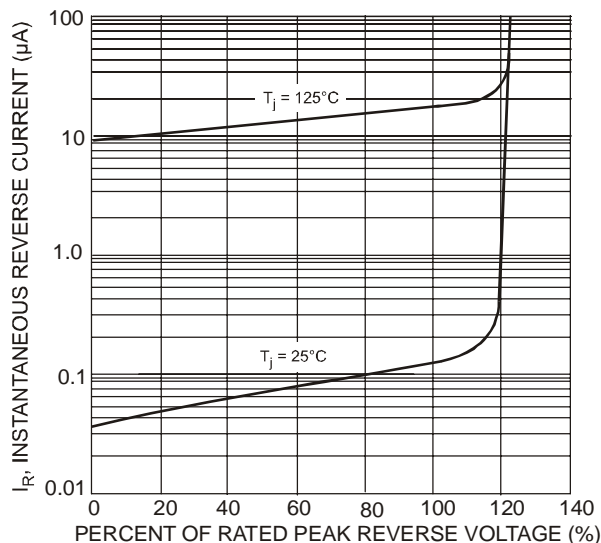


Fig. 5 Typ Reverse Characteristics (per element)

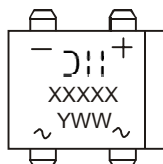
Ordering Information (Note 4)

| 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



DII = Manufacturers' code marking
 XXXXX = Product type marking code, ex: DF10M
 YWW = Date code marking
 Y = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

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