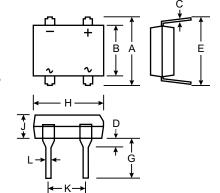


DF15005M - DF1510M

1.5A GLASS PASSIVATED BRIDGE RECTIFIERS

Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Printed Circuit Board Applications
- Plastic Material UL Flammability Classification 94V-0
- UL Listed Under Recognized Component Index, File Number E94661



| 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 | | | | | |
| E | 7.60 | 8.90 | | | | | |
| G | 3.81 | 4.69 | | | | | |
| Н | 8.13 | 8.51 | | | | | |
| J | 2.40 | 3.40 | | | | | |
| K | 5.00 | 5.20 | | | | | |
| L | 0.46 | 0.58 | | | | | |
| All Dimensions in mm | | | | | | | |

Mechanical Data

Case: Molded Plastic

 Terminals: Solder Plated Leads, Solderable per MIL-STD-202, Method 208

Polarity: As Marked on CaseApprox. Weight: 0.38 gramsMounting Position: Any

Marking: Type Number

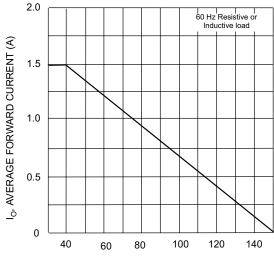
Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

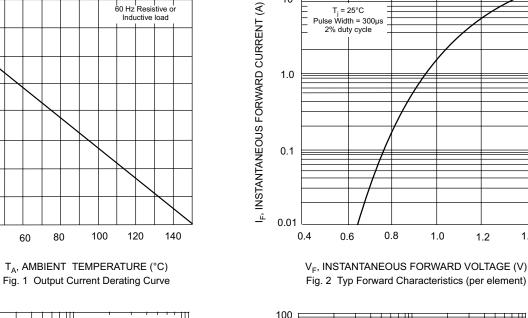
Single phase, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | DF 15005M | DF 1501M | DF 1502M | DF 1504M | DF 1506M | DF 1508M | DF 1510M | Unit |
|---|--|--------------|-------------|-------------|-------------|-------------|-------------|------------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @ T _A = 40°C | | 1.5 | | | | | | | Α |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | | 50 | | | | | | Α | |
| Forward Voltage (per element) @ I _F = 1.5/ | V _{FM} | 1.1 | | | | | | V | |
| Peak Reverse Current @T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C | | 10 500 | | | | | | μA | |
| I ² t Rating for Fusing (t<8.3ms) | | 10.4 | | | | | | A ² s | |
| Typical Junction Capacitance (Note 2) | | 25 | | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient | | 40 | | | | | | °C/W | |
| Operating and Storage Temperature Range | | -65 to +150 | | | | | | °C | |

Notes: 1. Thermal resistance from junction to ambient mounted on PC board with 13 x 13mm (0.03mm thick) land areas.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.



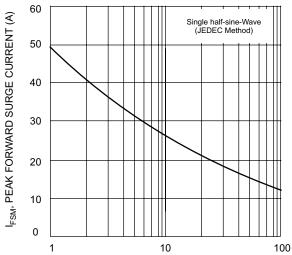


10

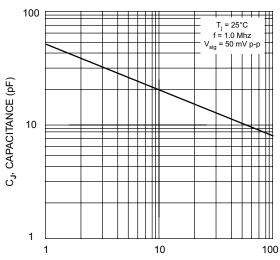
1.0

0.1

T_i = 25°C Pulse Width = 300µs 2% duty cycle



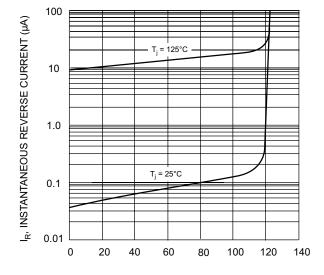
NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Forward Surge Current



1.2

1.4

V_R, REVERSE VOLTAGE (V) Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typ Reverse Characteristics (per element)