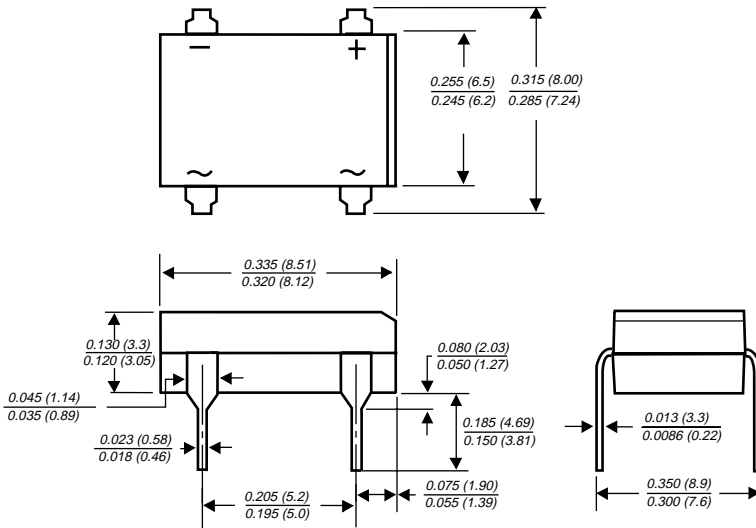




**Miniature Glass Passivated
Single-Phase Bridge Rectifiers**

Reverse Voltage 50 to 1000V
Forward Current 1.0A

Case Style DFM



Features

- This series is UL listed under the Recognized Component Index, file number E54214
- Plastic package used has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High surge overload rating of 50 Amperes peak
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols as marked on body
Mounting Position: Any
Weight: 0.014 oz., 0.4 g
Packaging codes/options: 45/50 ea. per Bulk Tube

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | DF 005M | DF 01M | DF 02M | DF 04M | DF 06M | DF 08M | DF 10M | Unit |
|---|--------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------------------|
| Device Marking Code | | DF005 | DF01 | DF02 | DF04 | DF06 | DF08 | DF10 | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Max. average forward output rectified current at T _A =40°C | I _{F(AV)} | 1.0 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | | | A |
| Rating for fusing (t < 8.3ms) | I ² t | 10 | | | | | | | A ² sec |
| Typical thermal resistance per leg (NOTE 1) | R _{θJA} R _{θJL} | 40 15 | | | | | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +150 | | | | | | | °C |

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | DF 005M | DF 01M | DF 02M | DF 04M | DF 06M | DF 08M | DF 10M | Unit |
|--|----------------|------------|--------|--------|--------|--------|--------|--------|------|
| Maximum instantaneous forward voltage drop per leg at 1.0A | V _F | 1.1 | | | | | | | V |
| Maximum reverse current at rated DC blocking voltage per leg | I _R | 5.0 500 | | | | | | | μA |
| Typical junction capacitance per leg at 4.0V, 1MHz | C _J | 25 | | | | | | | pF |

Note: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

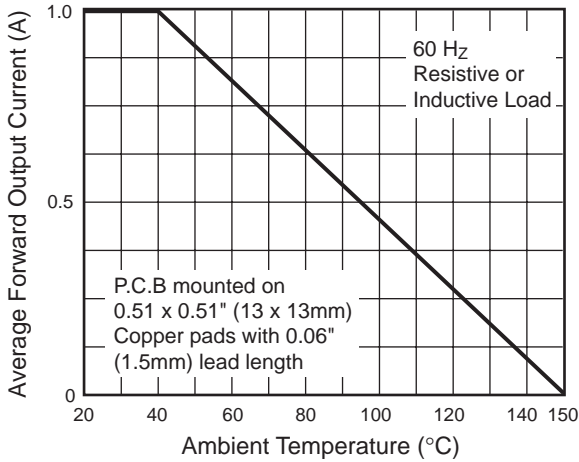


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

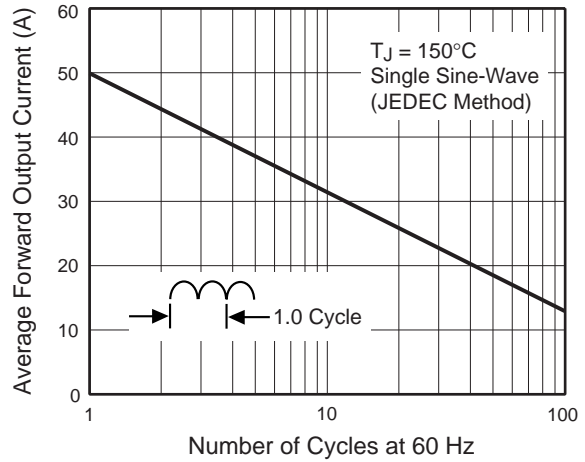


Fig. 3 - Typical Forward Characteristics Per Leg

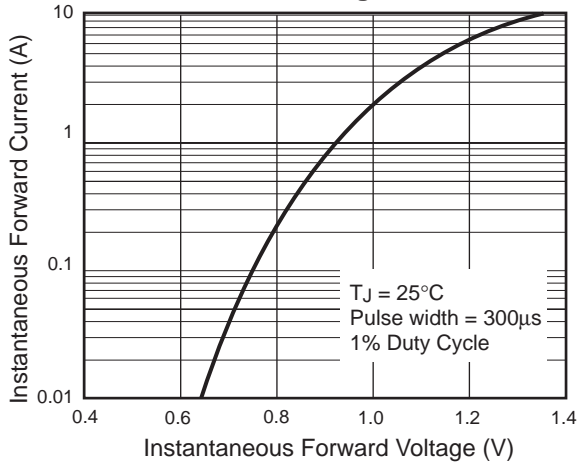


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

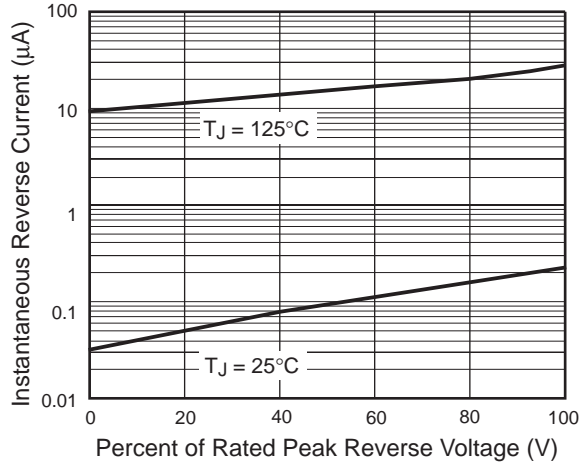


Fig. 5 - Typical Junction Capacitance Per Leg

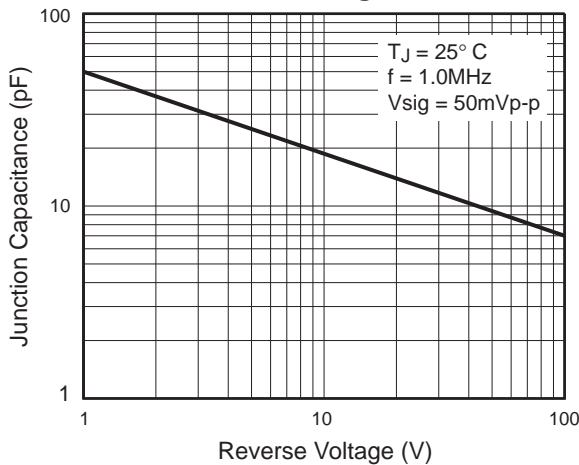


Fig. 6 - Typical Transient Thermal Impedance Per Leg

