

1.0A Sing le-Phase Glass Passivated Bridge Rectifiers

Features

- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265 °C /10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

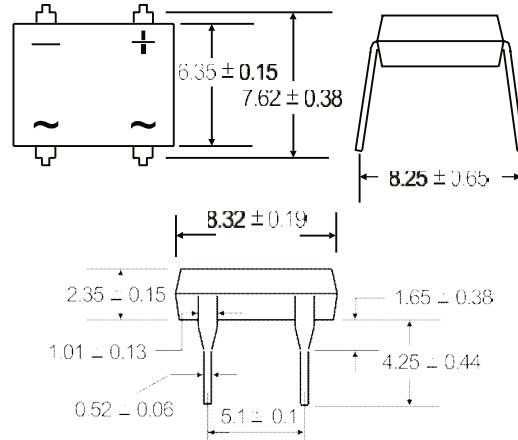
Case: Molded plastic

Terminals: Plated leads solderable per MIL-STD-202,
Method 208

Polarity: Marked on body

Mounting Position: Any

Weight: 0.38 grams (approx)



Dimensions in millimeters (1mm = 0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

| Parameter | Symbol | DF005 | DF01 | DF02 | DF04 | DF06 | DF08 | DF10 | unit |
|---|-----------------------------------|-------|------|------|--------------|------|------|------|--------------------|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS bridge input voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified output current at TA=40°C | IF(AV) | | | | 1.0 | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | | | | 50 | | | | A |
| Rating for fusing (t<8.3ms) | I ² t | | | | 10 | | | | A ² sec |
| Typical thermal resistance per element (1) | RthJA | | | | 110 | | | | °C / W |
| Typical junction capacitance per element (2) | C _j | | | | 25.0 | | | | pF |
| Operating junction and storage temperature range | T _J , T _{TSG} | | | | -55 to + 150 | | | | °C |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

| Parameter | Symbol | DF005 | DF01 | DF02 | DF04 | DF06 | DF08 | DF10 | Unit |
|---|--------|-------|------|------|-----------|------|------|------|------|
| Maximum instantaneous forward voltage drop per leg at 1.0A | VF | | | | 1.1 | | | | V |
| Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C | IR | | | | 10 500 | | | | μA |

Notes: (1)Thermal resistance from Junction to Ambient on P.C board mounting.

(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

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

DF005 thru DF10

Fig. 1 Derating Curve for Output Rectified Current

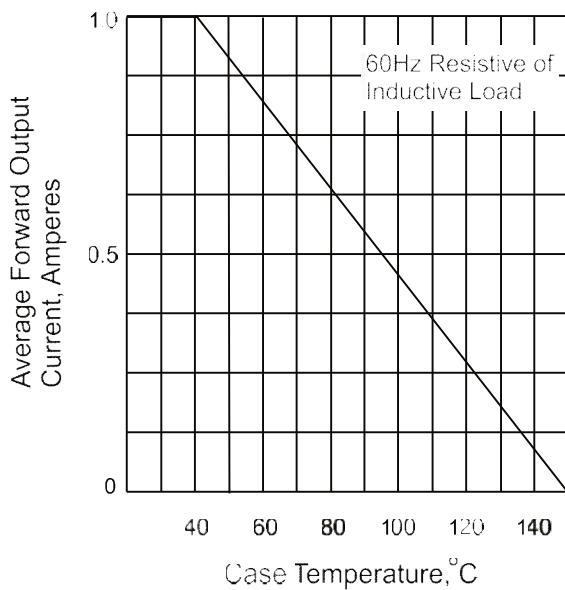


Fig. 3 Typical Instantaneous Forward Characteristics

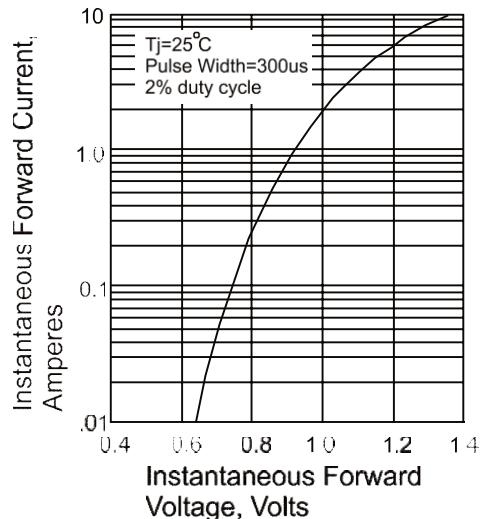


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

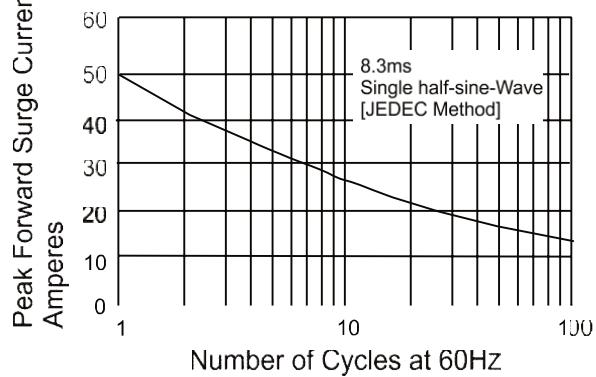


Fig. 4 Typical Revers Characteristics

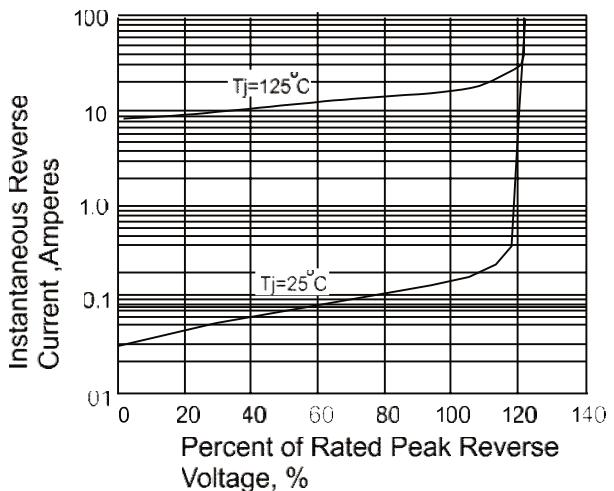


Fig. 5 Typical Junction Capacitance

