

3.0A Single-Phase GLass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50V to 1000V


DFS
Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes peak
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs(2.3kg)tension

Mechanical Data

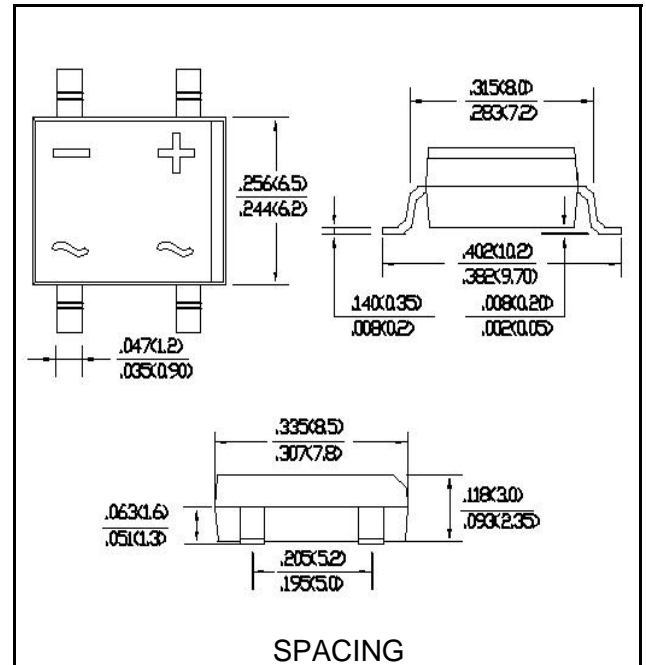
Case:Molded plastic

Terminals:Platde leads solderable per MIL-STD-750, Method 2026

Polarity:Polarity symbols molded or Marked on body

Mounting Position:Any

Weight:0.01ounce,0.3 grams(approx)


Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified,Resistive or inductive load,60HZ.

For Capacitive load derate current by 20%

| Parameter | Symbol | DF3005S | DF301S | DF302S | DF304S | DF306S | DF308S | DF310S | 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) | 3.0 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | 85 | | | | | | | A |
| Rating for fusing(t<8.3ms) | I ² t | 10 | | | | | | | A ² sec |
| Typical thermal resistance per element(1) | ReJA | 110 | | | | | | | °C/w |
| Typical thermal resistance per element(2) | Cj | 25.0 | | | | | | | PF |
| Operating junction and stroage temperature range | TJ, TSTG | -55to+150 | | | | | | | °C |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified,Resistive or inductive load,60HZ.

For Capacitive load derate current by 20%

| Parameter | Symbol | DF3005S | DF301S | DF302S | DF304S | DF306S | DF308S | DF310S | unit |
|--|--------|---------|--------|--------|--------|--------|--------|--------|------|
| Maximum instantaneous forward voltage drop per leg at 3.0A | VF | 1.1 | | | | | | | V |
| Maximum DC reverse current at ratde TA=25°C | IR | 10 | | | | | | | UA |
| DC blocking voltage per element TA=125°C | | 500 | | | | | | | |

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

(2)Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

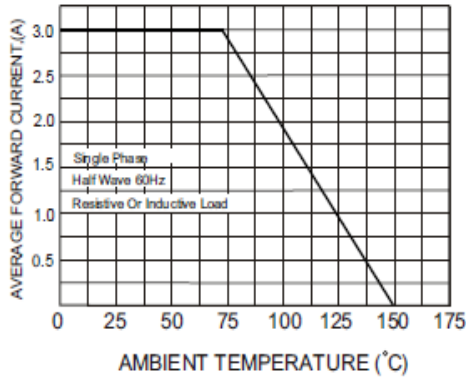


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

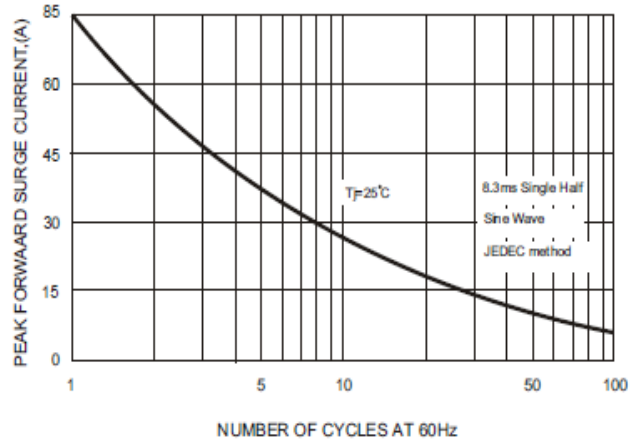


FIG.3-TYPICAL FORWARD CHARACTERISTICS

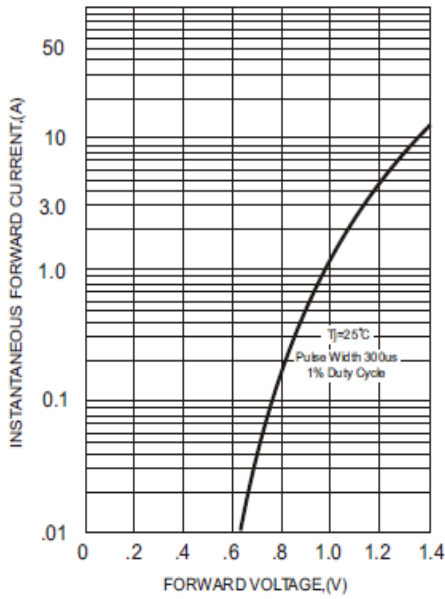


FIG.4-TYPICAL REVERSE CHARACTERISTICS

