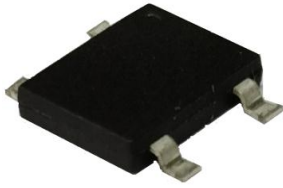


3.0A Single-Phase GLass Passivated Bridge Rectifiers

Recifier Reverse Voltage 50V to 1000V



DBF

Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Suge overload ratings to 85 amperes peak
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs(2.3kg)tension

Mechanical Data

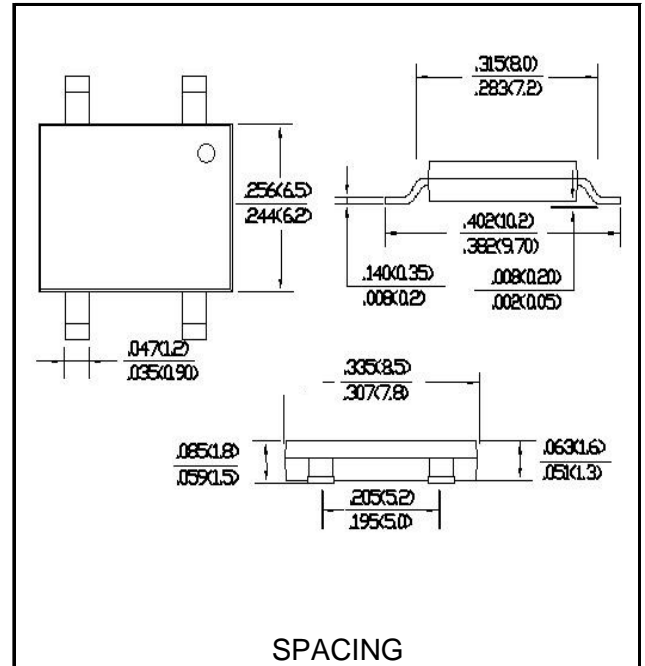
Case:Molded plastic

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

Polarity:Polarity symbols molded or Marked on body

Mounting Position:Any

Weight:0.011ounce,0.22 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 | DBF301 | DBF302 | DBF303 | DBF304 | DBF305 | DBF306 | DBF307 | 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 8.3ms single sine-wave super imposed on rated load (JEDEC Method) | IFSM | 85 | | | | | | | A |
| Rating for fusing(t<8.3ms) | I ² t | 30 | | | | | | | A ² sec |
| Typical Junction capacitance Per Element(Note 1) | Cj | 35 | | | | | | | pF |
| Typical thermal resistance (Note 2) | RθJA | 68 | | | | | | | °C/w |
| Operating j temperature range | TJ | -55to+150 | | | | | | | °C |
| Storage temperature range | 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 | DBF301 | DBF302 | DBF303 | DBF304 | DBF305 | DBF306 | DBF307 | 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 | 5 | | | | | | | μA |
| DC blocking voltage per element TA=125°C | | 100 | | | | | | | |

Notes: (1)Measured at 1.0MHz and applied reverse voltage of 4.0 V DC.

(2)Thermal resistance from junction to ambient mounted on P.C.B with 0.5*0.5(13*13mm)copper pads

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

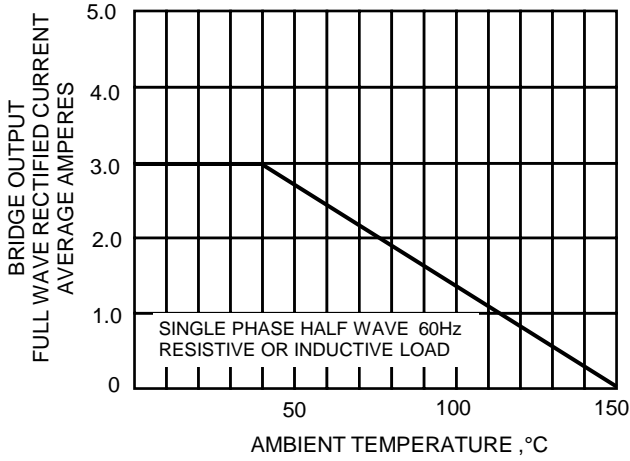


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

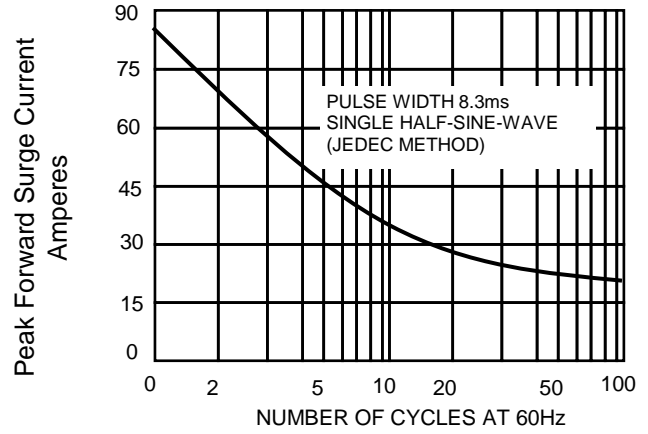


FIG.3-TYPICAL JUNCTION CAPACITANCE

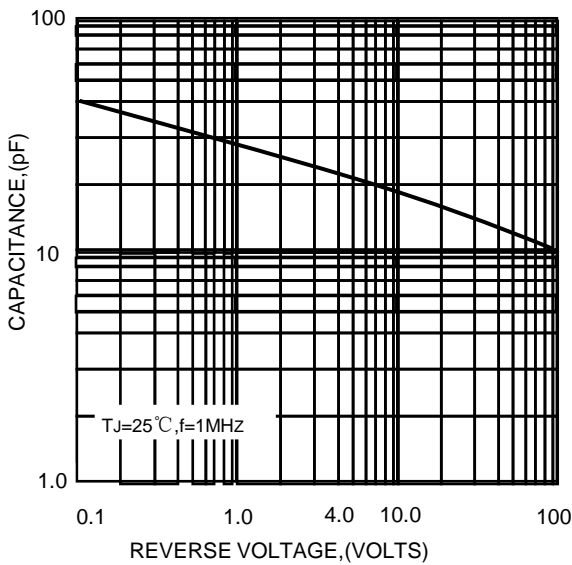


FIG.4-TYPICAL FORWARD CHARACTERISTICS

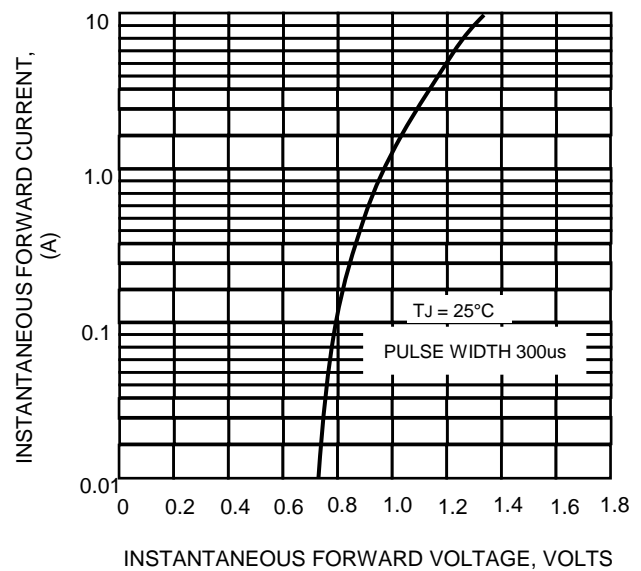
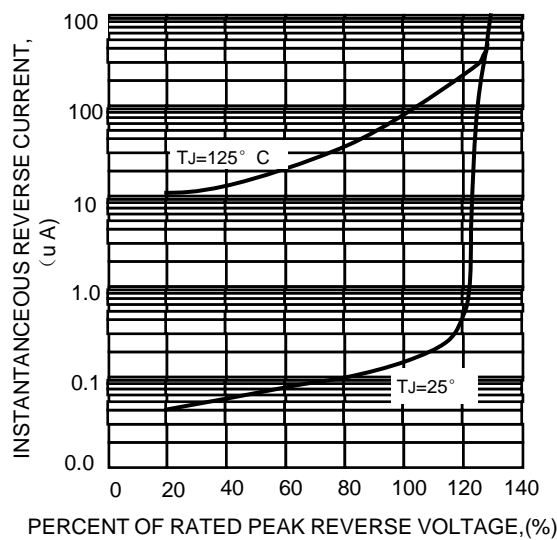
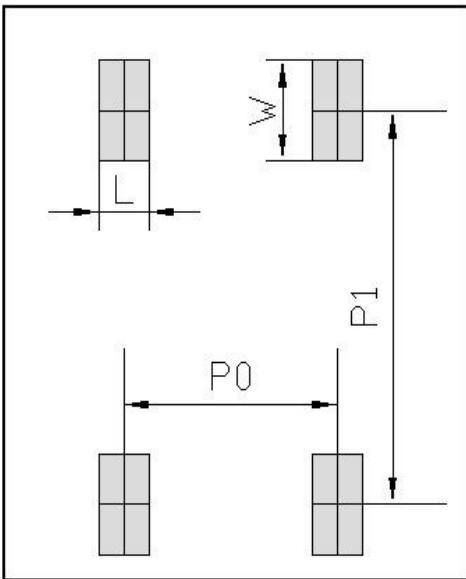


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Ordering Information(Example)

| PREFFREN P/N | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| DF3005S~DF310S | Approximate 0.30 | 2500 | 5000 | 25000 | REEL |

Suggested pad layout


Dimensions in millimeters

| Unit:mm | |
|---------|------|
| DIM | MIN |
| P0 | 5.12 |
| P1 | 8.73 |
| L | 1.2 |
| W | 2.22 |