

## 31DF6

### ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

VOLTAGE: 600V

CURRENT: 3.0A



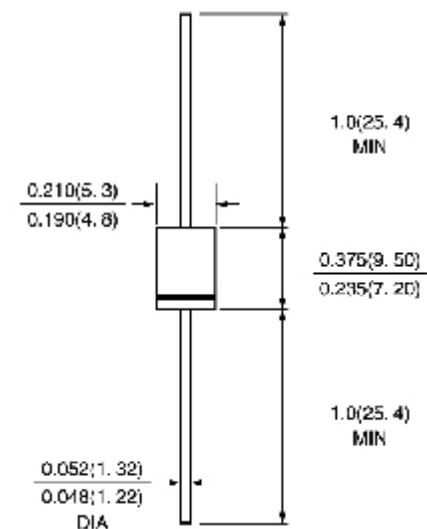
#### FEATURE

Low power loss  
High surge capability  
Ultra-fast recovery time for high efficiency  
High temperature soldering guaranteed  
250°C/10sec/0.375" lead length at 5 lbs tension

#### MECHANICAL DATA

Terminal: Plated axial leads solderable per  
MIL-STD 750, method 2026  
Case: Molded with UL-94 Class V-0 recognized Flame  
Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

#### DO-201AD



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

|                                                                                        | SYMBOL               | 31DF6         | units      |
|----------------------------------------------------------------------------------------|----------------------|---------------|------------|
| Maximum Recurrent Peak Reverse Voltage                                                 | V <sub>rrm</sub>     | 600           | V          |
| Maximum RMS Voltage                                                                    | V <sub>rms</sub>     | 420           | V          |
| Maximum DC blocking Voltage                                                            | V <sub>dc</sub>      | 600           | V          |
| Maximum Average Forward Rectified Current, 0.375" lead length at T <sub>L</sub> =110°C | I <sub>f(av)</sub>   | 3.0           | A          |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load      | I <sub>fsm</sub>     | 90            | A          |
| Maximum Forward Voltage at Forward current At 3.0A (Note 1)                            | V <sub>f</sub>       | 1.6           | V          |
| Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =120°C             | I <sub>r</sub>       | 10.0<br>100.0 | μ A<br>μ A |
| Maximum Reverse Recovery Time (Note 2)                                                 | T <sub>rr</sub>      | 30            | nS         |
| Typical Thermal Resistance                                                             | R <sub>th(ja)</sub>  | 30.0          | °C/W       |
| Storage and Operating Junction Temperature                                             | T <sub>stg, Tj</sub> | -40 to +150   | °C         |

Note:

1. Pulse test: 300μs pulse width, 1% duty cycle
2. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

