

## UF2A THRU UF2K

**SURFACE MOUNT ULTRAFAST RECTIFIER**  
**VOLTAGE - 50 TO 800 Volts    CURRENT - 2.0 Amperes**

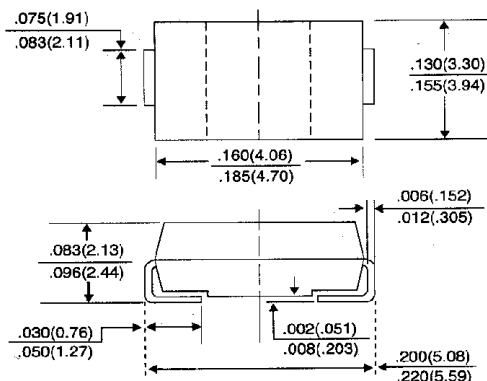
### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:  
260°C/10 seconds at terminals

### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic  
 Terminals: Solder plated solderable per MIL-STD-750, Method 2026  
 Polarity: Indicated by cathode band  
 Standard Packaging: 12mm tape (EIA-481)  
 Weight: 0.003 ounces, 0.093 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load.  
 For capacitive load, derate current by 20%

|  | SYMBOLS                           | UF2A        | UF2B | UF2D | UF2G | UF2J  | UF2K | UNITS |    |
|--|-----------------------------------|-------------|------|------|------|-------|------|-------|----|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>                  | 50          | 100  | 200  | 400  | 600   | 800  | Volts |    |
| Maximum RMS Voltage  | V <sub>RMS</sub>                  | 35          | 70   | 140  | 280  | 420   | 560  | Volts |    |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>                   | 50          | 100  | 200  | 400  | 600   | 800  | Volts |    |
| Maximum Average Forward Rectified Current, T <sub>L</sub> = 90°C   | I <sub>(AV)</sub>                 | 2.0         |      |      |      |       |      | Amps  |    |
| Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) T <sub>A</sub> = 55°C | I <sub>FSM</sub>                  | 50.0        |      |      |      |       |      | Amps  |    |
| Maximum Instantaneous Forward Voltage at 2.0A  | V <sub>F</sub>                    | 1.0         |      | 1.4  |      | 1.7   |      | Volts |    |
| Maximum DC Reverse Current T <sub>A</sub> = 25°C<br>at Rated DC Blocking Voltage T <sub>A</sub> = 100°C                      | I <sub>R</sub>                    | 10.0<br>200 |      |      |      |       |      | μA    |    |
| Maximum Reverse Recovery Time (NOTE 1) T <sub>J</sub> = 25°C   | T <sub>RR</sub>                   | 50.0        |      |      |      | 100.0 |      |       | nS |
| Typical Junction Capacitance (NOTE 2)  | C <sub>J</sub>                    | 28          |      |      |      |       |      | pf    |    |
| Maximum Thermal Resistance (NOTE 3)  | R <sub>θJL</sub>                  | 20.0        |      |      |      |       |      | °C/W  |    |
| Operating and Storage Temperature Range  | T <sub>J</sub> , T <sub>STG</sub> | -50 to +150 |      |      |      |       |      | °C    |    |

**NOTES:**

1. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.
3. 8.0mm<sup>2</sup> (.013mm thick) land areas.

RATING AND CHARACTERISTIC CURVES  
UF2A THRU UF2K

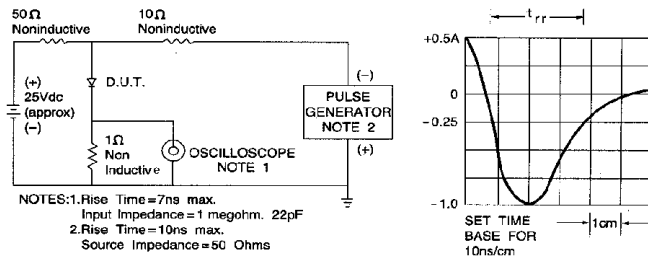
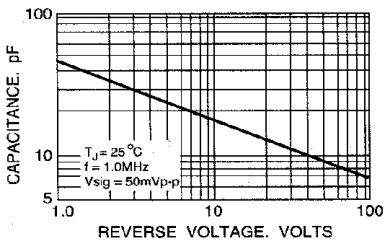
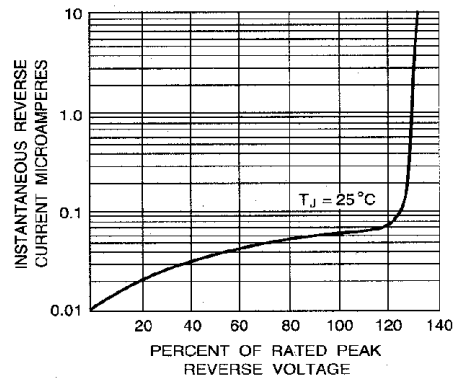
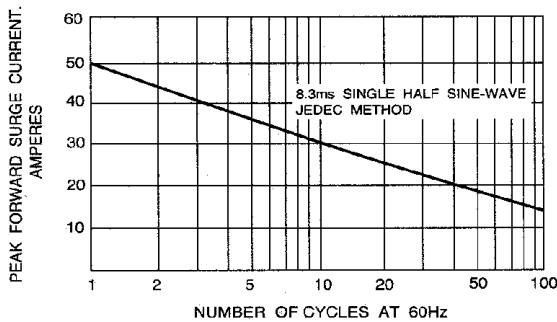
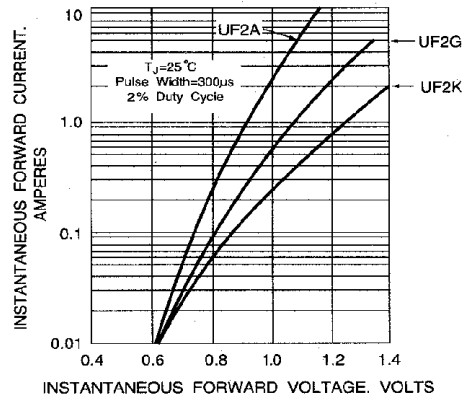
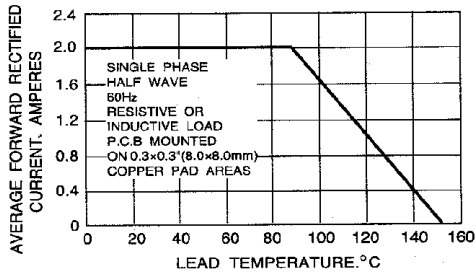


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

FIG. 6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM