

**SURFACE MOUNT GLASS PASSIVATED  
SUPER FAST SILICON RECTIFIER**  
VOLTAGE RANGE 50 to 200 Volts CURRENT 2.0 Ampere

**FEATURES**

- \* Glass passivated device
- \* For surface mounted applications
- \* Ultrafast recovery times dor high efficiency
- \* Low forward voltage, low power loss
- \* Low leakage current

**MECHANICAL DATA**

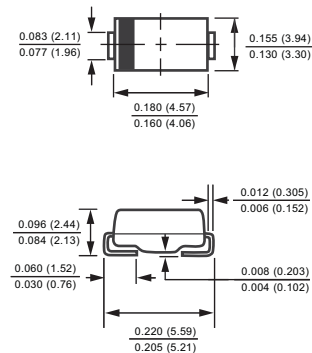
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.098 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Resistive or inductive load.



**DO-214AA**



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

| RATINGS                                                                                           | SYMBOL          | UFM201       | UFM202 | UFM203 | UFM204 | UNITS            |
|---------------------------------------------------------------------------------------------------|-----------------|--------------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | $V_{RRM}$       | 50           | 100    | 150    | 200    | Volts            |
| Maximum RMS Voltage                                                                               | $V_{RMS}$       | 35           | 70     | 105    | 140    | Volts            |
| Maximum DC Blocking Voltage                                                                       | $V_{DC}$        | 50           | 100    | 150    | 200    | Volts            |
| Maximum Average Forward Rectified Current at $T_A = 55^{\circ}C$                                  | $I_O$           | 2.0          |        |        |        | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 50           |        |        |        | Amps             |
| Typical Current Square Time                                                                       | $I^2T$          | 10.3         |        |        |        | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 1)                                                               | $R_{\theta JA}$ | 75           |        |        |        | °C/W             |
| Typical Thermal Resistance (Note 1)                                                               | $R_{\theta JL}$ | 20           |        |        |        | °C/W             |
| Typical Junction Capacitance (Note 2)                                                             | $C_J$           | 18           |        |        |        | pF               |
| Operating Temperature Range                                                                       | $T_J$           | 150          |        |        |        | °C               |
| Storage Temperature Range                                                                         | $T_{STG}$       | -55 to + 150 |        |        |        | °C               |

**ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)**

| CHARACTERISTICS                                       | SYMBOL   | UFM201 | UFM202 | UFM203 | UFM204 | UNITS |
|-------------------------------------------------------|----------|--------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 2.0A DC      | $V_F$    | 0.95   |        |        |        | Volts |
| Maximum Average Reverse Current @ $T_A = 25^{\circ}C$ | $I_R$    | 5      |        |        |        | μA    |
| at Rated DC Blocking Voltage @ $T_A = 150^{\circ}C$   |          | 2      |        |        |        | mA    |
| Maximum Reverse Recovery Time (Note 4)                | $t_{rr}$ | 25     |        |        |        | nSec  |

- NOTES : 1. Thermal Resistance :Mounted on PCB.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. "ROHS compliant".  
4. Test Conditions:  $I_F = 0.5A$ ,  $I_R = -1.0A$ ,  $I_{RR} = -0.25A$ .

## RATING AND CHARACTERISTICS CURVES ( UFM201 THRU UFM204 )

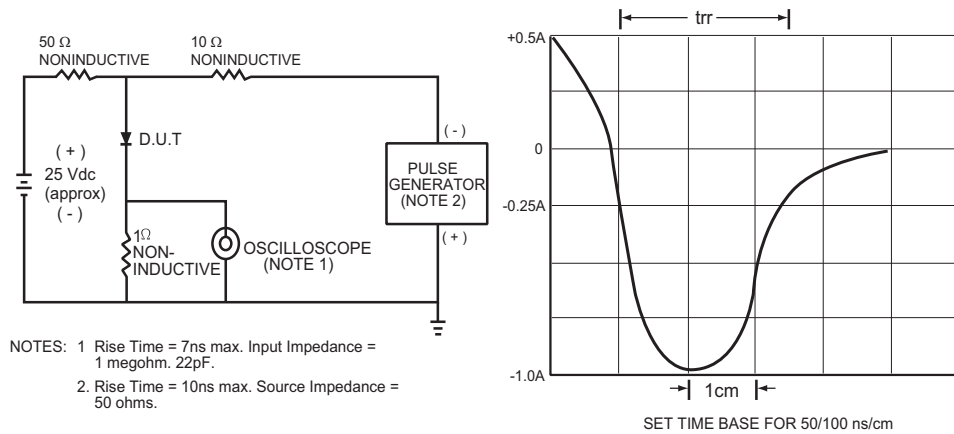


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

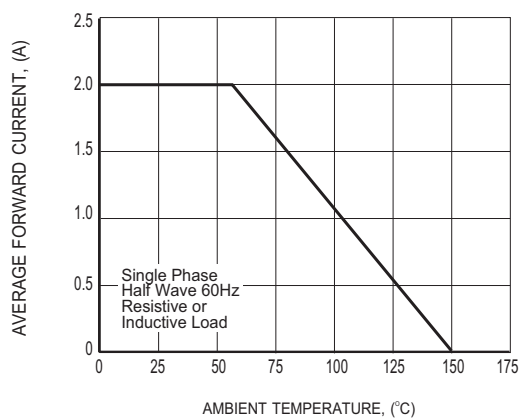


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

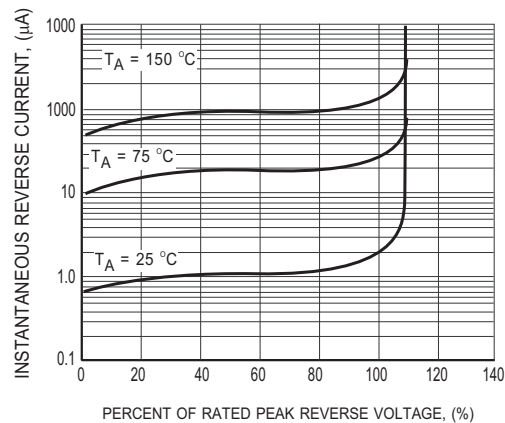
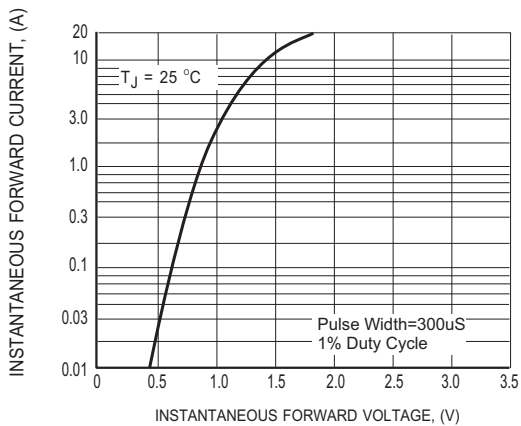
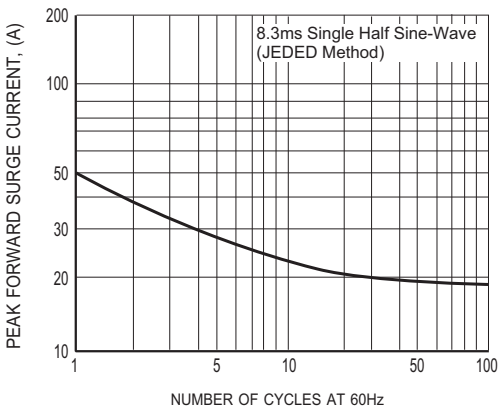


FIG.3 TYPICAL REVERSE CHARACTERISTICS

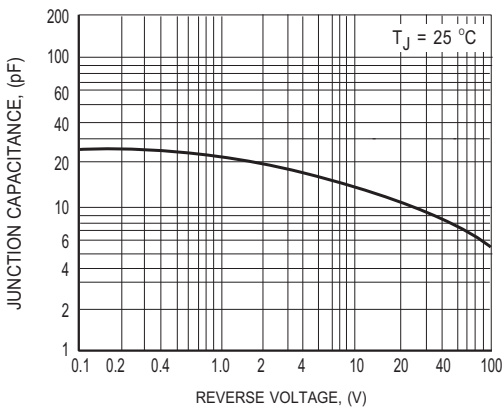
**RATING AND CHARACTERISTICS CURVES ( UFM201 THRU UFM204 )**



**FIG.4 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**

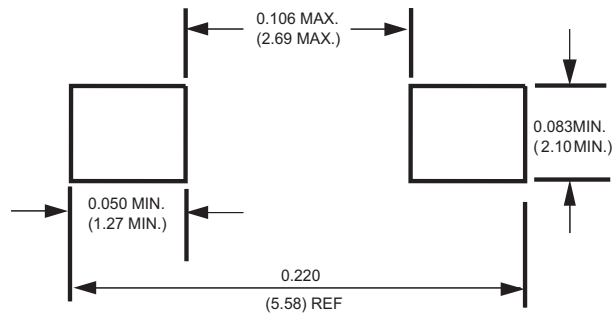


**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



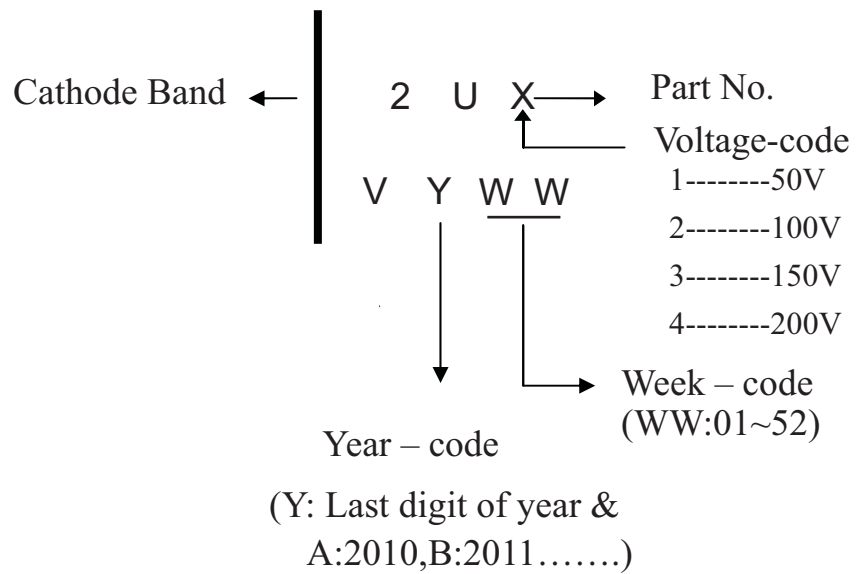
**FIG.6 TYPICAL JUNCTION CAPACITANCE**

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| SMB     | -W/-T        | 3,000       | 6,000            | ---                  | ---             | 330           | 360*355*360      | 48,000        | 13.90            |

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