



# UF4001 THRU UF4007

## 高效整流二极管 High Efficient Rectifier

### ■特征 Features

- $I_o$  1.0A
- VRRM 50V-1000V
- 耐正向浪涌电流能力高
- High surge current capability

### ■用途 Applications

- 整流用 Rectifier

### ■极限值（绝对最大额定值）

#### Limiting Values (Absolute Maximum Rating)

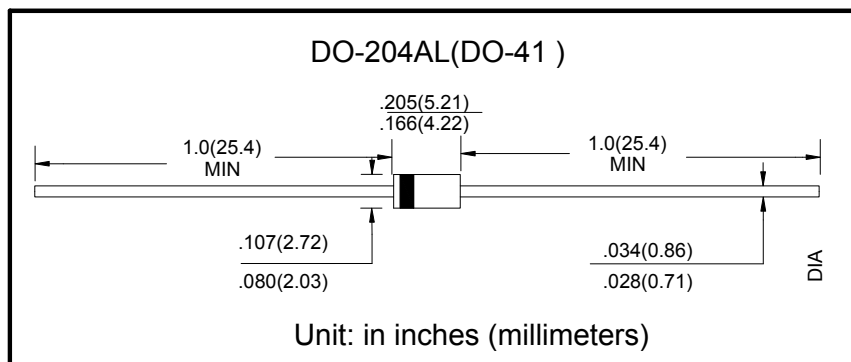
| 参数名称<br>Item                                        | 符号<br>Symbol | 单位<br>Unit  | 条件<br>Conditions                                                                             | UF400      |     |     |     |     |     |      |
|-----------------------------------------------------|--------------|-------------|----------------------------------------------------------------------------------------------|------------|-----|-----|-----|-----|-----|------|
|                                                     |              |             |                                                                                              | 1          | 2   | 3   | 4   | 5   | 6   | 7    |
| 反向重复峰值电压<br>Repetitive Peak Reverse Voltage         | $V_{RRM}$    | V           |                                                                                              | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| 正向平均电流<br>Average Forward Current                   | $I_{F(AV)}$  | A           | 正弦半波 60Hz,电阻负载, $T_a=50^{\circ}C$<br>60Hz Half-sine wave, Resistance load, $T_a=50^{\circ}C$ | 1.0        |     |     |     |     |     |      |
| 正向（不重复）浪涌电流<br>Surge(Non-repetitive)Forward Current | $I_{FSM}$    | A           | 正弦半波 60Hz, 一个周期, $T_a=25^{\circ}C$<br>60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$        | 30         |     |     |     |     |     |      |
| 结温<br>Junction Temperature                          | $T_J$        | $^{\circ}C$ |                                                                                              | -55~+125   |     |     |     |     |     |      |
| 储存温度<br>Storage Temperature                         | $T_{STG}$    | $^{\circ}C$ |                                                                                              | -55 ~ +150 |     |     |     |     |     |      |

### ■电特性（ $T_a=25^{\circ}C$ 除非另有规定）

#### Electrical Characteristics ( $T_a=25^{\circ}C$ Unless otherwise specified)

| 参数名称<br>Item                          | 符号<br>Symbol         | 单位<br>Unit | 测试条件<br>Test Condition                                            |                     | UF400 |   |   |     |     |   |   |
|---------------------------------------|----------------------|------------|-------------------------------------------------------------------|---------------------|-------|---|---|-----|-----|---|---|
|                                       |                      |            |                                                                   |                     | 1     | 2 | 3 | 4   | 5   | 6 | 7 |
| 正向峰值电压<br>Peak Forward Voltage        | V <sub>FM</sub>      | V          | I <sub>FM</sub> =1.0A                                             |                     | 1.0   |   |   | 1.3 | 1.7 |   |   |
| 反向峰值电流<br>Peak Reverse Current        | I <sub>RRM1</sub>    | μA         | V <sub>RM</sub> =V <sub>RRM</sub>                                 | T <sub>a</sub> =25℃ | 5     |   |   |     |     |   |   |
|                                       | T <sub>a</sub> =125℃ |            |                                                                   | 50                  |       |   |   |     |     |   |   |
| 反向恢复时间<br>Reverse Recovery time       | t <sub>rr</sub>      | ns         | I <sub>F</sub> =0.5A I <sub>R</sub> =1A<br>I <sub>RR</sub> =0.25A |                     | 50    |   |   |     | 75  |   |   |
| 热阻(典型)<br>Thermal Resistance(Typical) | R <sub>θJ-A</sub>    | ℃/W        | 结和环境之间<br>Between junction and ambient                            |                     | 55    |   |   |     |     |   |   |
|                                       | R <sub>θJ-L</sub>    |            | 结和引线之间<br>Between junction and lead                               |                     | 25    |   |   |     |     |   |   |

### ■外形尺寸和印记 Outline Dimensions and Mark



## ■特性曲线（典型） Characteristics(Typical)

图1: 正向电流降额曲线

FIG.1: FORWARD CURRENT DERATING CURVE

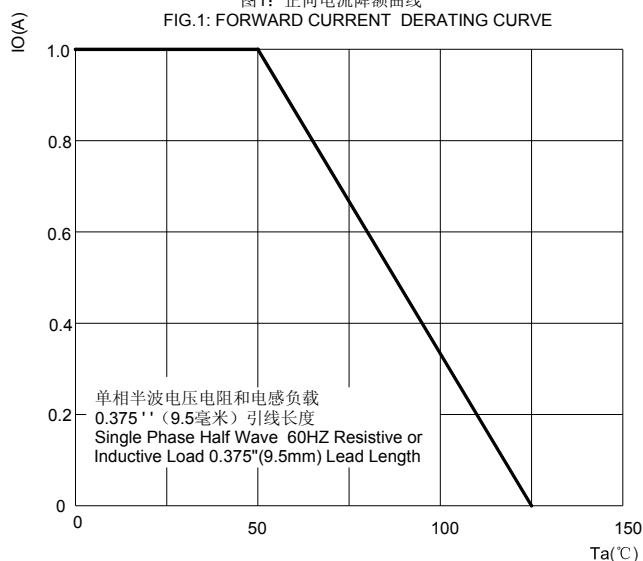
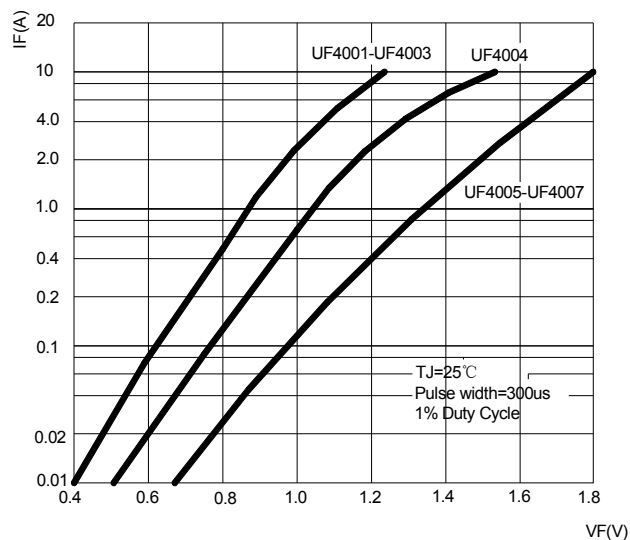
FIG.3 典型正向特性曲线  
TYPICAL FORWARD CHARACTERISTICS

图2: 最大正向浪涌冲击耐受力

FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

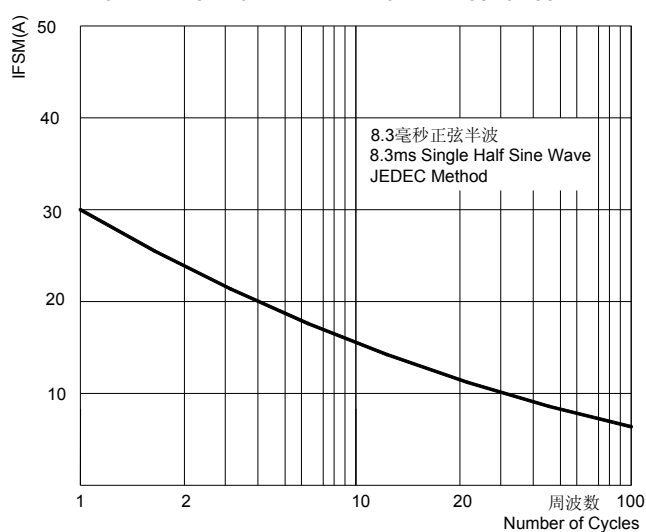


图4: 典型反向特性曲线

FIG.4: TYPICAL REVERSE CHARACTERISTICS

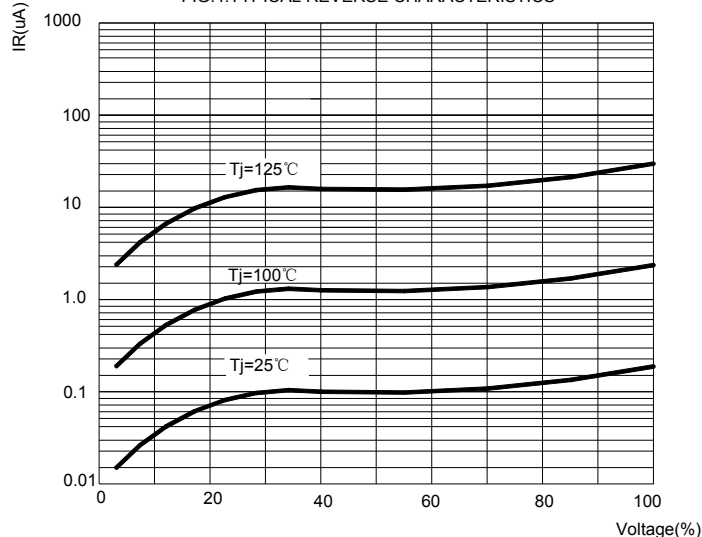


图5: 反向恢复时间试验电路及测试波形示意图

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

