



# US1A THRU US1M

## 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

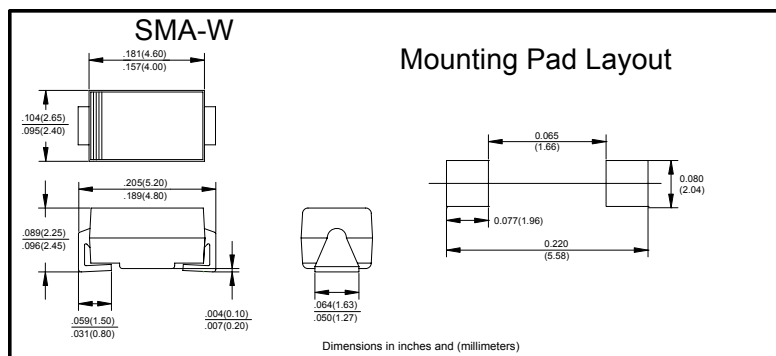
### ■用途 Applications

- 整流用 Rectifier

### ■极限值 (绝对最大额定值)

#### Limiting Values (Absolute Maximum Rating)

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



| 参数名称<br>Item  | 符号<br>Symbol | 单位<br>Unit       | 条件<br>Conditions  | US         |     |     |     |     |     |     |      |
|---|--------------|------------------|---|------------|-----|-----|-----|-----|-----|-----|------|
|   |              |                  |   | 1A         | 1B  | 1D  | 1F  | 1G  | 1J  | 1K  | 1M   |
| 反向重复峰值电压<br>Repetitive Peak Reverse Voltage           | $V_{RRM}$    | V                |   | 50         | 100 | 200 | 300 | 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, $T_a=50^\circ\text{C}$<br>60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$ | 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, $T_a=25^\circ\text{C}$<br>60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$         | 30         |     |     |     |     |     |     |      |
| 结温<br>Junction Temperature                            | $T_J$        | $^\circ\text{C}$ |   | -55~+125   |     |     |     |     |     |     |      |
| 储存温度<br>Storage Temperature                           | $T_{STG}$    | $^\circ\text{C}$ |   | -55 ~ +150 |     |     |     |     |     |     |      |

### ■电特性 (Ta=25°C 除非另有规定)

#### Electrical Characteristics (Ta=25°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                 | US                      |    |     |    |     |    |    |    |
|---------------------------------------|------------------|--------------------|--|-------------------------|----|-----|----|-----|----|----|----|
|                                       |                  |                    |  | 1A                      | 1B | 1D  | 1F | 1G  | 1J | 1K | 1M |
| 正向峰值电压<br>Peak Forward Voltage        | $V_{FM}$         | V                  | $I_{FM}=1.0A$                          | 1.0                     |    | 1.3 |    | 1.7 |    |    |    |
| 反向峰值电流<br>Peak Reverse Current        | $I_{RRM1}$       | $\mu\text{A}$      | $V_{RM}=V_{RRM}$                       | $T_a=25^\circ\text{C}$  |    |     |    |     |    |    |    |
|                                       | $I_{RRM2}$       |                    |  | $T_a=125^\circ\text{C}$ |    |     |    |     |    |    |    |
| 反向恢复时间<br>Reverse Recovery time       | $t_r$            | ns                 | $I_F=0.5A$ $I_R=1A$<br>$I_{RR}=0.25A$  | 50                      |    |     |    | 75  |    |    |    |
| 热阻(典型)<br>Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^\circ\text{C}/W$ | 结和环境之间<br>Between junction and ambient | 55                      |    |     |    |     |    |    |    |
|                                       | $R_{\theta J-L}$ |                    | 结和引线之间<br>Between junction and lead    | 25                      |    |     |    |     |    |    |    |

## ■ 特性曲线 (典型) Characteristics(Typical)

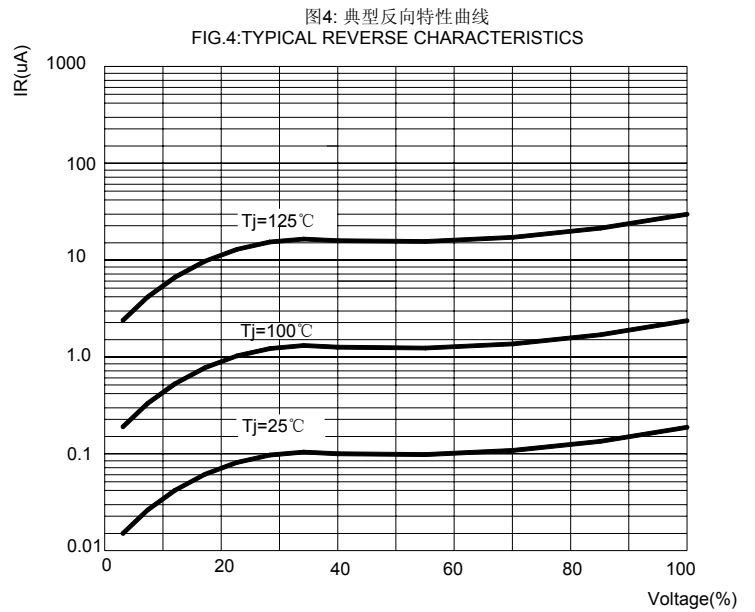
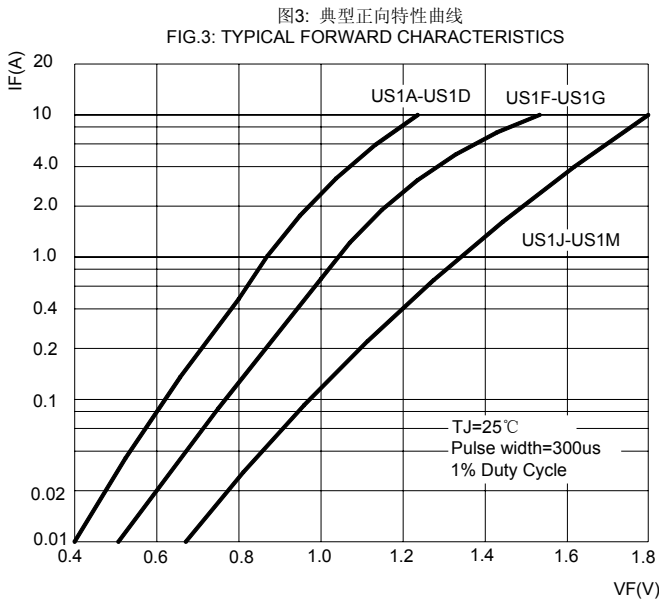
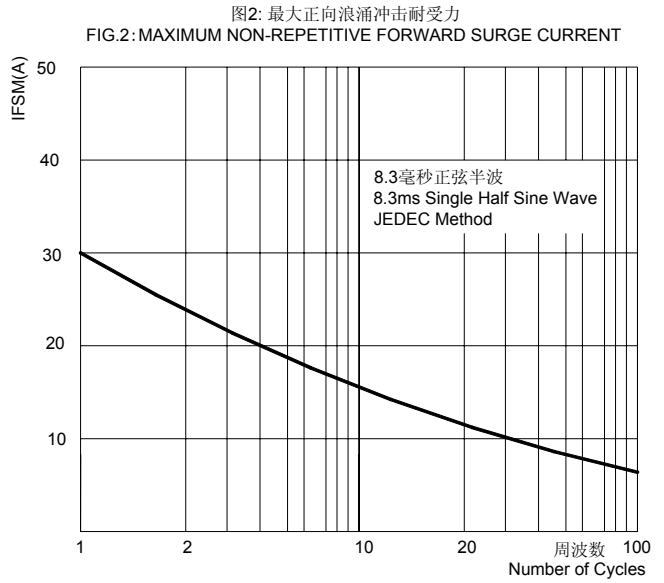
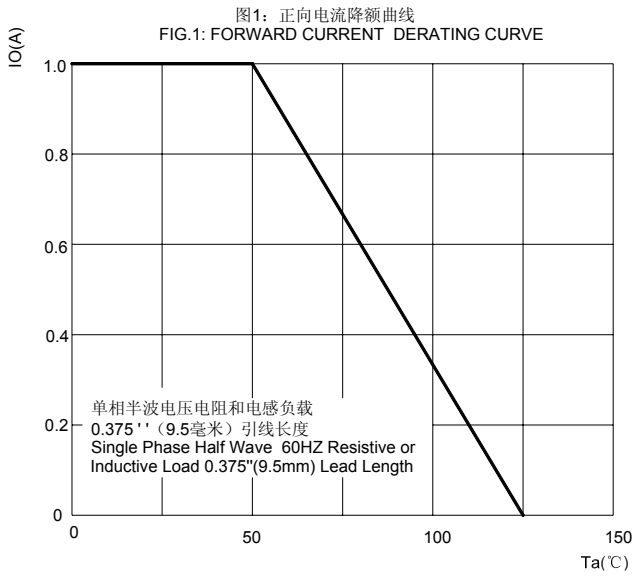


图5: 反向恢复时间试验电路及测试波形示意图  
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

