

**SAF3012****超高频高压二极管**

反向电压：12 kV，正向电流：30 mA，反向恢复时间：75 ns

Super-Fast Recovery High Voltage Diode

Reverse Voltage：12 kV

Average Forward Current：30 mA

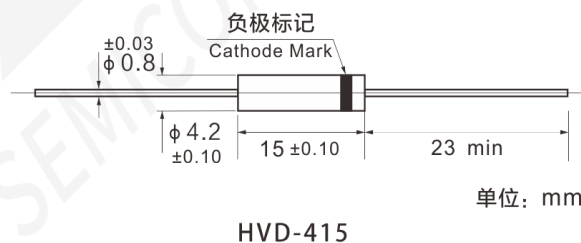
Maximum Reverse Recovery Time：75 ns

**技术资料****Technical Data**

- 产品级别：外贸级
- 封装形式：环氧封装
- 引线：轴向
- 极性：色环指示负极
- Product Standard: International Standard
- Package Type: Epoxy Encapsulation
- Lead: Axial Lead
- Polarity: Cathode Indicated by Color Band

**产品标准****Product Standard**

Q/FT TRV0003-2022 《高压二极管》

**验收标准****Acceptance Criteria**

GB/T 4023-1997 《半导体器件分立器件和集成电路 第2部分：整流二极管》

Semiconductor Devices-Discrete Devices and Integrated Circuits-Part 2: Rectifier Diodes

**外形尺寸****External Dimensions**

封装代号：HVD-415；详见右图

Package Code: HVD-415. Please refer to the figure on the right.



## 特性及参数值

### Characteristics and Parameter

除非另有规定，环境温度均为 25°C。

The ambient temperature is 25°C unless otherwise specified.

| 电气特性<br>Electrical Characteristics                                                         | 符 号<br>Symbol | 额定值<br>Ratings                               | 单 位<br>Unit        |
|--------------------------------------------------------------------------------------------|---------------|----------------------------------------------|--------------------|
| 最大反向重复峰值电压<br>Maximum Repetitive Peak Reverse Voltage                                      | $V_{RRM}$     | 12                                           | kV                 |
| 最大反向不重复峰值电压<br>Maximum Non-repetitive Peak Reverse Voltage                                 | $V_{RSM}$     | 13                                           | kV                 |
| 最大正向平均电流<br>Maximum Average Forward Current<br>(@ $T_{oil} = 55^{\circ}\text{C}$ )         | $I_{F(AV)}$   | 30                                           | mA                 |
| 最大正向浪涌电流<br>Maximum Forward Surge Current                                                  | $I_{FSM}$     | 3                                            | A                  |
| 最大正向峰值电压<br>Maximum Peak Forward Voltage<br>(@ $I_F = I_{F(AV)}$ )                         | $V_{FM}$      | $\leq 16$                                    | V                  |
| 最大直流反向电流<br>Maximum DC Reverse Current<br>(@ $V_R = V_{RRM}$ )                             | $I_R$         | $\leq 2$ ( $T_a = 25^{\circ}\text{C}$ )      | $\mu\text{A}$      |
|                                                                                            |               | $\leq 5$ ( $T_{oil} = 100^{\circ}\text{C}$ ) |                    |
| 最大反向恢复时间<br>Maximum Reverse Recovery Time<br>( $I_F = 40\text{mA}$ , $I_R = 80\text{mA}$ ) | $t_{rr}$      | $\leq 75$                                    | ns                 |
| 有效工作结温<br>Operating Junction Temperature Range                                             | $T_J$         | $-55 \sim +125$                              | $^{\circ}\text{C}$ |
| 贮存温度<br>Storage Temperature Range                                                          | $T_{STG}$     | $-55 \sim +150$                              | $^{\circ}\text{C}$ |