

## 表面安装超快恢复整流二极管

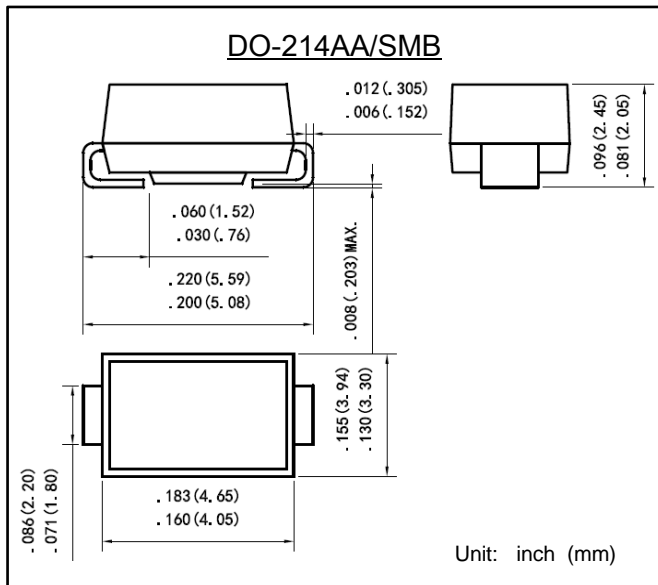
反向电压 50 ~ 1000 V

正向电流 5.0 A

## Surface Mounted Super Fast Rectifiers

Reverse Voltage 50 ~ 1000 V

Forward Current 5.0 A



### 特征 Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力强 High forward surge capability
- 高信赖性 High reliability
- 高温焊接保证 High temperature soldering guaranteed:  
260°C/10 秒  
260°C/10seconds
- 引线 and 管体皆符合RoHS标准  
Lead and body according with RoHS standard
- 型号后缀“-F”标记无卤素产品  
Green compound with suffix "-F" on Marking

### 机械数据 Mechanical Data

- 封装外形:DO-214AA 塑封 Case:DO-214AA Molded plastic
- 环氧树脂:UL易燃等级:94V-0  
Epoxy:UL 94V-0 rate flame retardant
- 引脚:镀锡,无铅 Lead:Pure tin plated, lead free

### 最大值和特性 TA = 25°C 除非另有规定。

### Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

| 参数<br>Parameter   | 符号<br>Symbols   | ES5AB        | ES5BB | ES5DB | ES5GB | ES5JB | ES5KB | ES5MB | 单位<br>Unit |
|---|-----------------|--------------|-------|-------|-------|-------|-------|-------|------------|
| 最大可重复峰值反向电压<br>Maximum repetitive peak reverse voltage                    | $V_{RRM}$       | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | V          |
| 最大均方根电压<br>Maximum RMS voltage  | $V_{RMS}$       | 35           | 70    | 140   | 280   | 420   | 560   | 700   | V          |
| 最大直流阻断电压<br>Maximum DC blocking voltage                                   | $V_{DC}$        | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | V          |
| 最大正向平均整流电流<br>Maximum average forward rectified current                   | $I_{F(AV)}$     | 5.0          |       |       |       |       |       |       | A          |
| 正向不重复浪涌电流 8.3 ms 单一正弦半波<br>8.3 ms single half sine-wave                   | $I_{FSM}$       | 125          |       |       |       |       | 110   |       | A          |
| 最大正向电压 @ $I_F=5.0A$<br>Maximum forward voltage                            | $V_F$           | 0.95         |       | 1.25  | 1.70  | 3.20  |       | V     |            |
| 最大反向电流 @ $V_{DC}$<br>Maximum reverse current                              | $I_R$           | 5<br>100     |       |       |       |       |       |       | $\mu A$    |
| 最大反向恢复时间 $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$<br>MAX. reverse recovery time | $T_{RR}$        | 35           |       |       |       |       |       |       | nS         |
| 典型热阻<br>Typical thermal resistance (Note 1)                               | $R_{\theta JA}$ | 105          |       |       |       |       |       |       | °C/W       |
| 典型结电容 $V_R=4.0V, f=1MHz$<br>Type junction capacitance                     | $C_J$           | 90           |       |       |       |       |       |       | pF         |
| 工作结温<br>Operating junction temperature rang                               | $T_J$           | -55 --- +150 |       |       |       |       |       |       | °C         |
| 存储温度<br>Storage temperature rang  | $T_{STG}$       | -55 --- +150 |       |       |       |       |       |       | °C         |

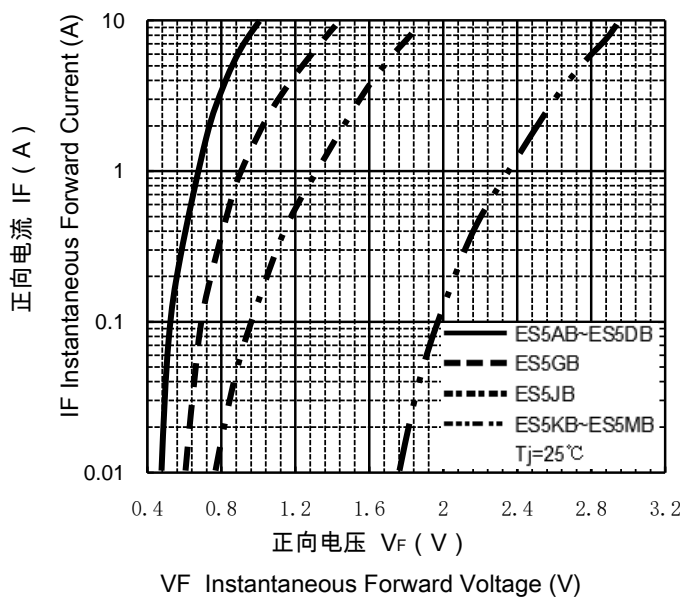
备注 Note:

- 安装在PCB板上, 从PN结到周围环境的热阻。  
1) Thermal resistance from junction to ambient, PCB mounted.

## 特性曲线 Characteristic Curves

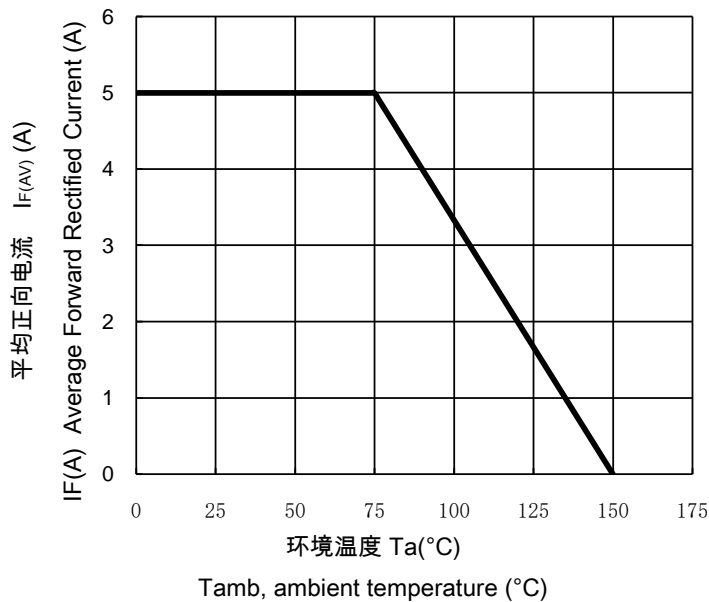
正向特性曲线 (典型值)

TYPICAL FORWARD CHARACTERISTIC



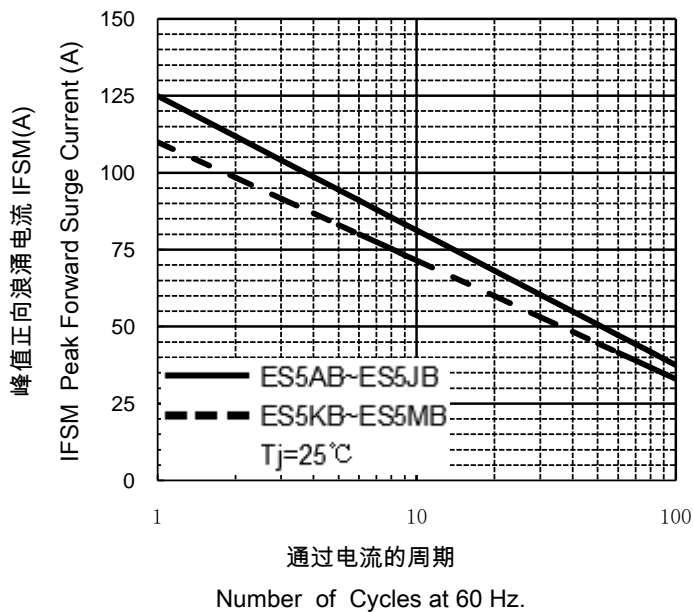
正向电流降额曲线

FORWARD CURRENT DERATING CURVE



浪涌特性曲线 (最大值)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



反向特性曲线

TYPICAL REVERSE CHARACTERISTICS

