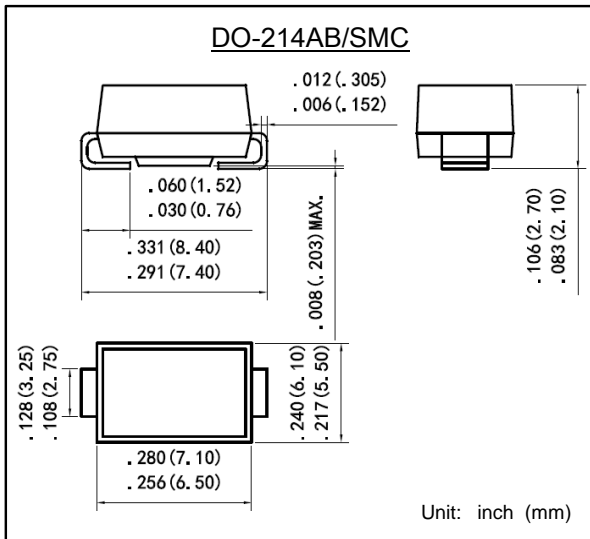表面安装普通整流二极管
反向电压 50 ~ 1000 V
正向电流 10.0 A

## Surface Mount General-purpose Rectifiers
Reverse Voltage 50 ~ 1000 V
Forward Current 10.0 A

### DO-214AB/SMC



.012 (.305)
.006 (.152)
.060 (1.52)
.030 (0.76)
.331 (8.40)
.291 (7.40)
.008 (.203) MAX.
.106 (2.70)
.083 (2.10)
.128 (3.25)
.108 (2.75)
.240 (6.10)
.217 (5.50)
.280 (7.10)
.256 (6.50)

Unit: inch (mm)

## 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℃/10 秒
  260℃/10seconds
- 引线和管体皆符合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-214AB 塑封 Case:DO-214AB 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℃ 除非另有规定。
## Maximum Ratings & Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

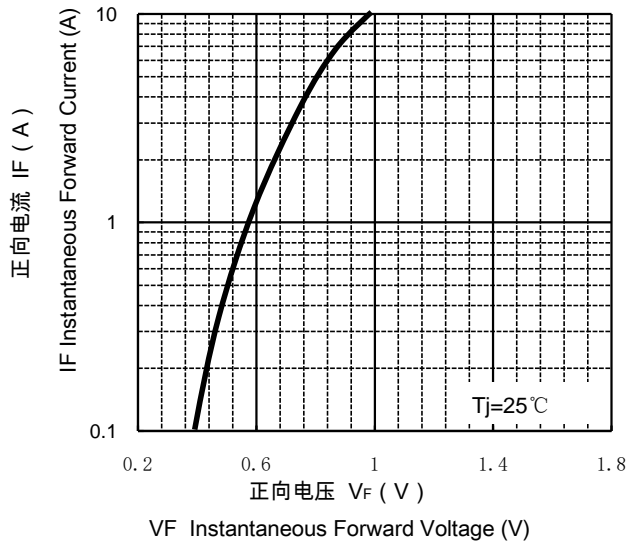| 参数<br>Parameter | 符号<br>Symbols | S10A | S10B | S10D | S10G | S10J | S10K | S10M | 单位<br>Unit |
|---|---|---|---|---|---|---|---|---|---|
| 最大可重复峰值反向电压<br>Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| 最大均方根电压 Maximum RMS voltage | $V_{RMS}$ | 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 | $I_{F(AV)}$ | 10.0 | | | | | | | A |
| 正向不重复浪涌电流 8.3 ms单一正弦半波<br>Non-repetitive peak forward surge current<br>8.3 ms singlehalf sine-wave | $I_{FSM}$ | 240 | | | | | | | A |
| 最大正向电压 @IF=10.0A<br>Maximum forward voltage | $V_F$ | 1.1 | | | | | | | V |
| 最大反向电流 @$V_{DC}$     TA= 25℃<br>Maximum reverse current     TA= 125℃ | $I_R$ | 5<br>100 | | | | | | | μA |
| 典型热阻 Typical thermal resistance（Note 1） | $R_{\theta JA}$ | 47 | | | | | | | ℃/W |
| 典型结电容 VR=4.0V,f=1MHz<br>Type junction capacitance | $C_J$ | 85 | | | | | | | pF |
| 工作结温和存储温度<br>Operating junction and storage temperature rang | $T_J$, $T_{STG}$ | -55 --- +150 | | | | | | | ℃ |

备注 Note：

1) 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）
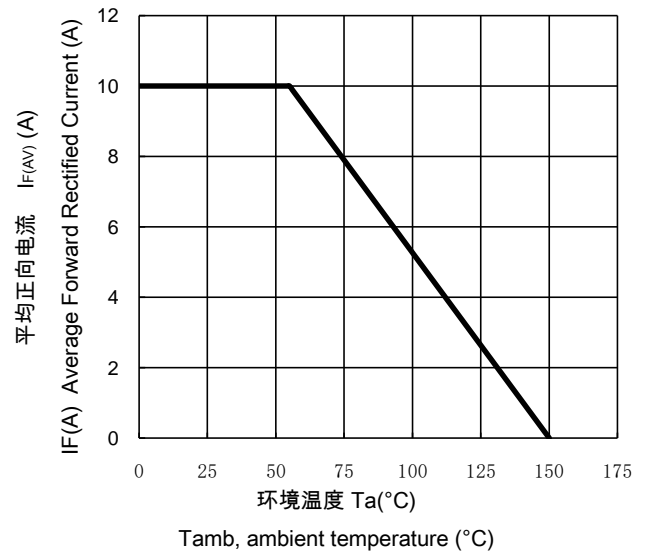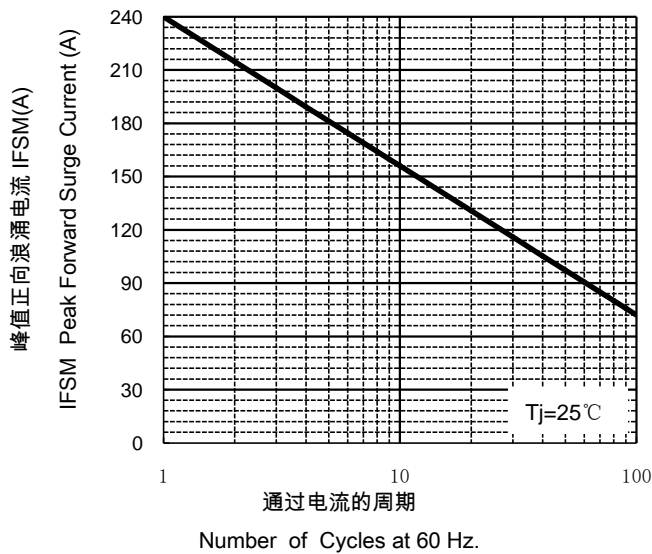### TYPICAL FORWARD CHARACTERISTIC



Y-axis: 正向电流 IF（A） / IF Instantaneous Forward Current (A)
X-axis: 正向电压 V$_F$（V） / VF Instantaneous Forward Voltage (V)
Tj=25℃

### 正向电流降额曲线
### FORWARD CURRENT DERATING CURVE



Y-axis: 平均正向电流 I$_{F(AV)}$（A） / IF(A) Average Forward Rectified Current (A)
X-axis: 环境温度 Ta(°C) / Tamb, ambient temperature (°C)

### 浪涌特性曲线（最大值）
### MAXIMUM NON REPETITIVE
### PEAK FORWARD SURGE CURRENT



Y-axis: 峰值正向浪涌电流 IFSM(A) / IFSM Peak Forward Surge Current (A)
X-axis: 通过电流的周期 / Number of Cycles at 60 Hz.
Tj=25℃

### 反向特性曲线
### Typical Reverse Characteristics



Y-axis: 反向电流IR(uA) / Reverse Current(uA)
X-axis: 额定峰值反向电压% / Percent Of Rated Peak Reverse voltage %
Tj=25℃