



# US3AA-US3MA

## 表面安装高效率整流二极管

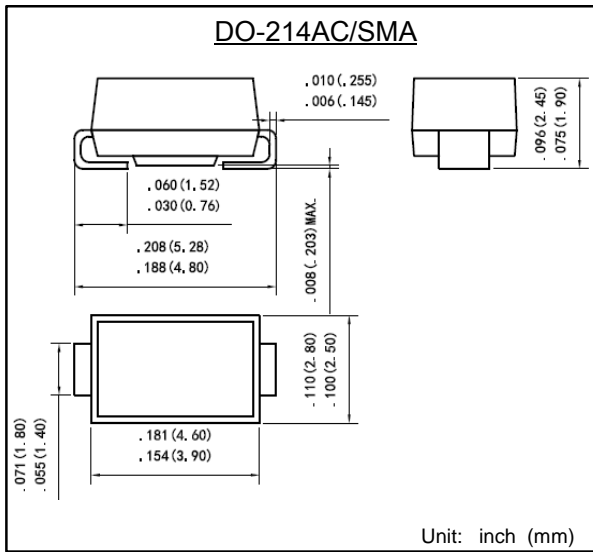
反向电压 50 ~ 1000 V

正向电流 3.0 A

## Surface Mounted High-efficiency Rectifiers

Reverse Voltage 50 ~ 1000 V

Forward Current 3.0 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-214AC塑封 Case:DO-214AC 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 Parameter	符号 Symbols	US3AA	US3BA	US3DA	US3GA	US3JA	US3KA	US3MA	单位 Unit
最大可重复峰值反向电压 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 Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
最大正向平均整流电流 Maximum average forward rectified current	$I_{F(AV)}$	3.0							A
正向不重复浪涌电流 8.3 ms单一正弦半波 Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	$I_{FSM}$	80							A
最大正向电压 @IF=3.0A Maximum forward voltage	$V_F$	1.0		1.3		1.7		V	
最大反向电流 @V <sub>DC</sub> Maximum reverse current	$I_R$	5							μA
TA= 25°C TA= 125°C		100							
最大反向恢复时间 IF=0.5A, IR=1.0A, IRR=0.25A MAX. reverse recovery time	$T_{RR}$	50				75			nS
典型热阻 Typical thermal resistance (Note 1)	$R_{\theta JA}$	125							°C/W
典型结电容 VR=4.0V, f=1MHz Type junction capacitance	$C_J$	42							pF
工作结温 Operating junction temperature rang	$T_J$	-55 --- +150							°C
存储温度 storage temperature rang	$T_{STG}$	-55 --- +150							°C

备注 Note:

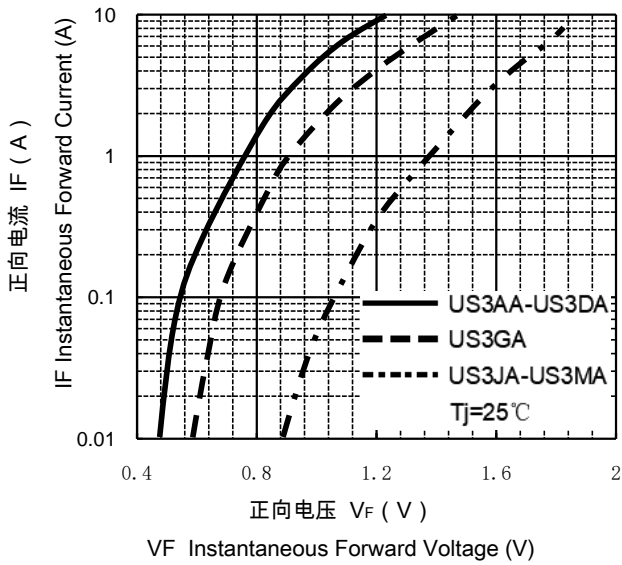
- 1) 安装在PCB板上, 从PN结到周围环境的热阻。
- 1) Thermal resistance from junction to ambient, PCB mounted.



## 特性曲线 Characteristic Curves

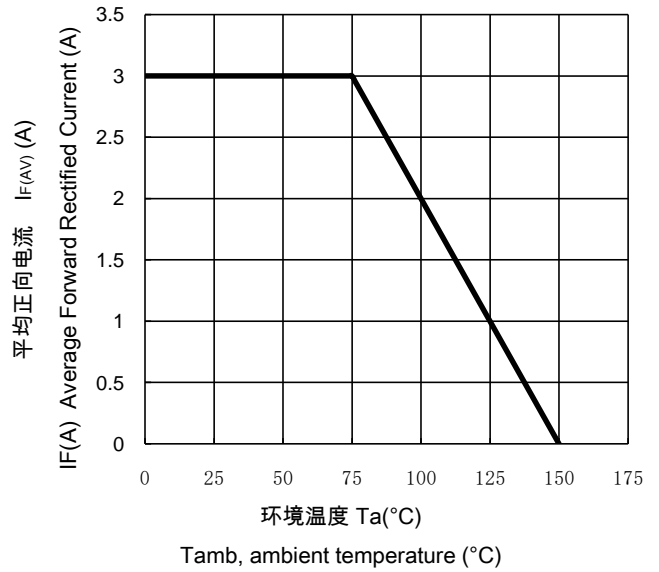
正向特性曲线 (典型值)

TYPICAL FORWARD CHARACTERISTIC



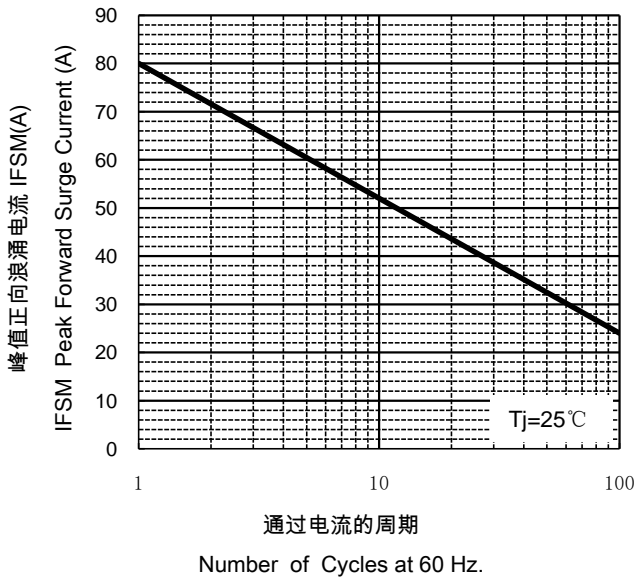
正向电流降额曲线

FORWARD CURRENT DERATING CURVE



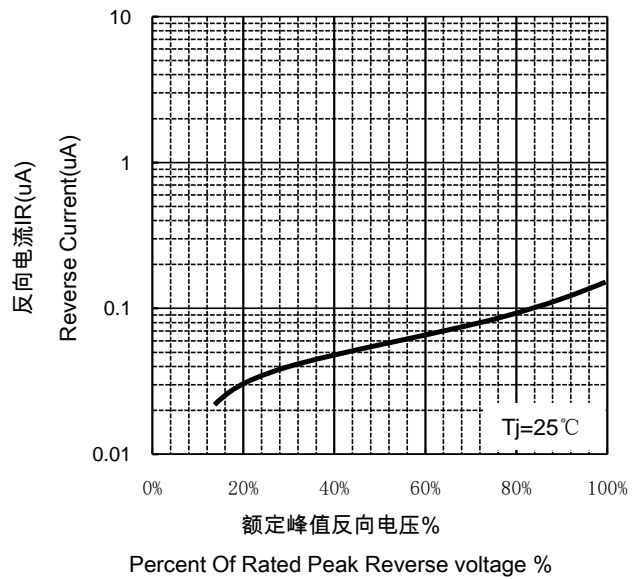
浪涌特性曲线 (最大值)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



反向特性曲线

TYPICAL REVERSE CHARACTERISTICS



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