

表面安装高效率整流二极管

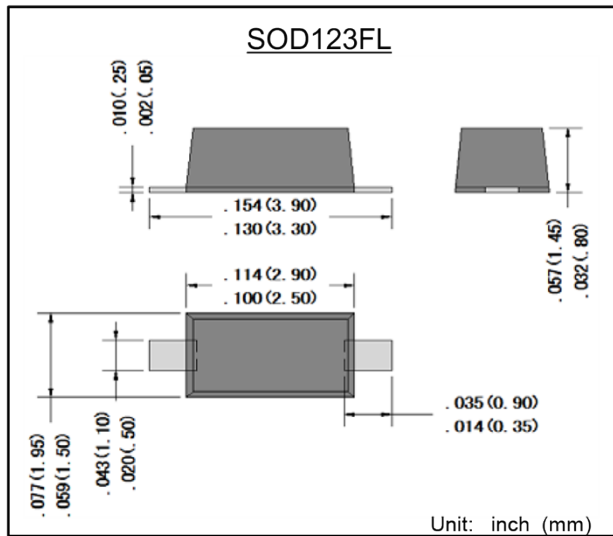
反向电压 50 ~ 1000 V

正向电流 1.0 A

Surface Mount High-efficiency Rectifiers

Reverse Voltage 50 ~ 1000 V

Forward Current 1.0 A



特征 Features

- 玻璃钝化芯片 Glass passivated chip
- 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:SOD123FL 塑封 Case:SOD123FL 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

极限值和温度特性 TA = 25°C 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

参数 Parameter	符号 Symbols	US1AL	US1BL	US1DL	US1GL	US1JL	US1KL	US1ML	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	$I_{F(AV)}$	1.0							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 single half sine-wave	I_{FSM}	30							A
典型热阻 Typical thermal resistance (Note 1)	$R_{\theta JA}$	180							°C/W
工作结温 Operating junction temperature	T_J	150							°C
存储温度 Storage temperature range	T_{STG}	-55 --- +150							°C

备注 Note:

1) 安装在覆铜面积5.0毫米*5.0毫米的PCB板上, 从PN结到周围环境的热阻。

1) Thermal resistance from junction to ambient, PCB mounted with 5.0mm*5.0mm Copper Pad Areas.

电特性 TA = 25°C 除非另有规定。

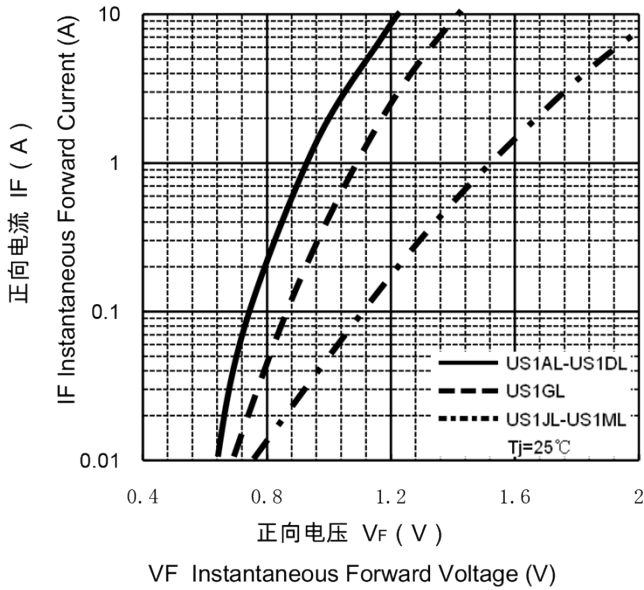
Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

参数 Parameter	符号 Symbols	US1AL	US1BL	US1DL	US1GL	US1JL	US1KL	US1ML	单位 Unit
最大正向电压 @IF=1.0A Maximum forward voltage	V_F	1.0			1.3	1.7			V
最大反向电流 @V _{DC} TA= 25°C Maximum reverse current	I_R	5							μA
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

特性曲线 Characteristic Curves

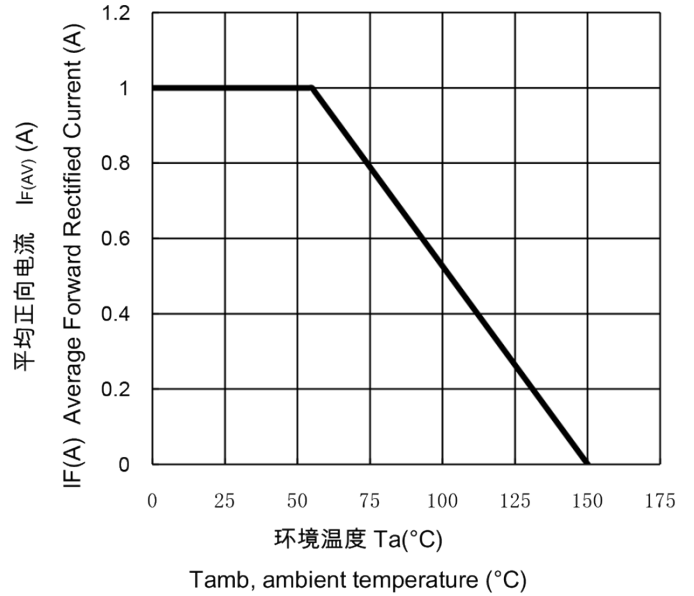
正向特性曲线 (典型值)

TYPICAL FORWARD CHARACTERISTIC



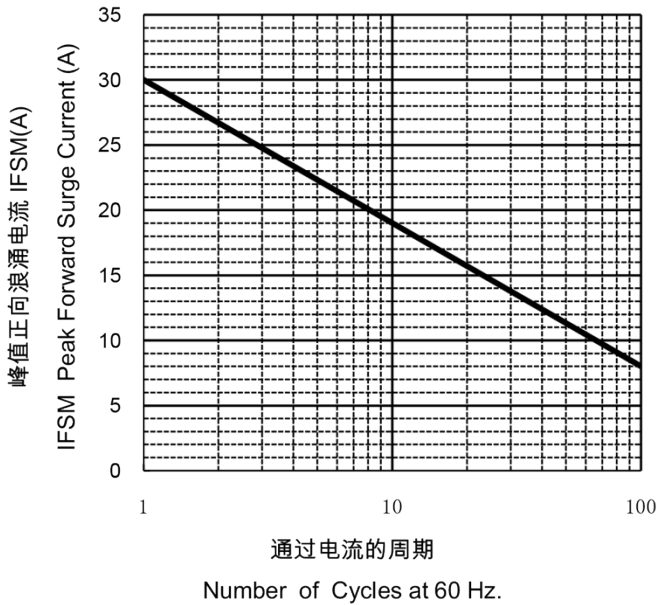
正向电流降额曲线

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

