



# 安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

US1AF-US1MF

## SMAF Super Fast Recovery Diode 特快恢复二极管

### ■ Features 特点

High current capability 高电流能力  
 Low forward voltage drop 低正向压降  
 Super Fast Recovery time 特快恢复时间  
 Surface mount device 表面贴装器件  
 Case 封装:SMAF



### ■ Maximum Rating 最大额定值

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

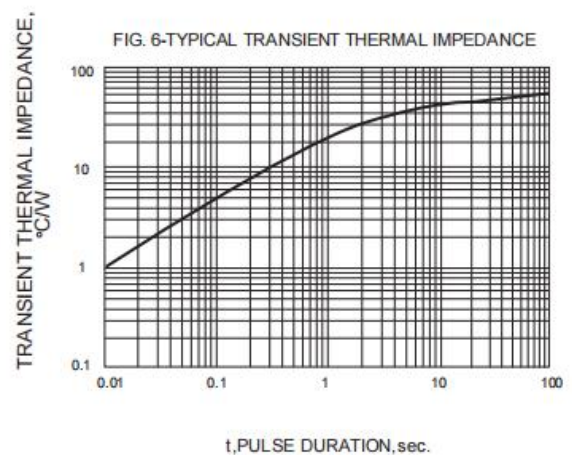
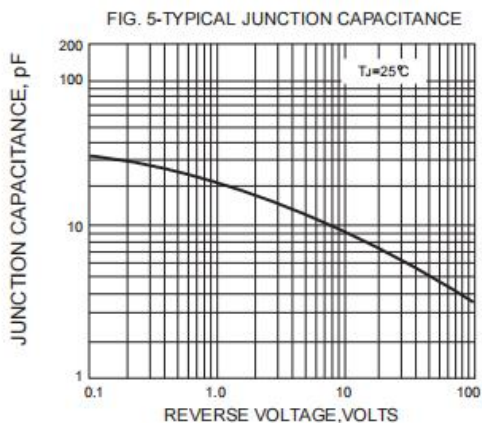
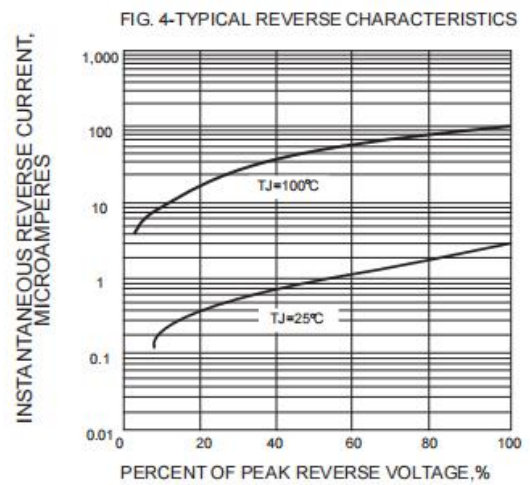
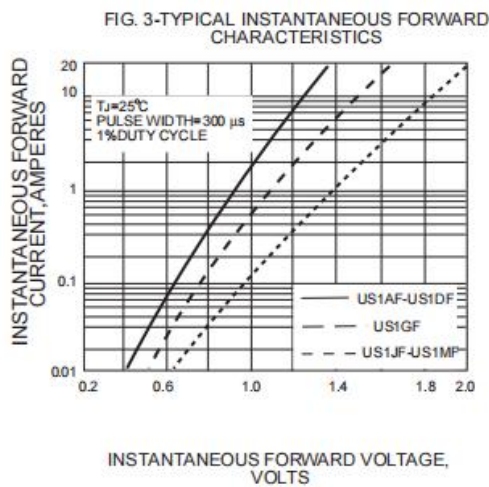
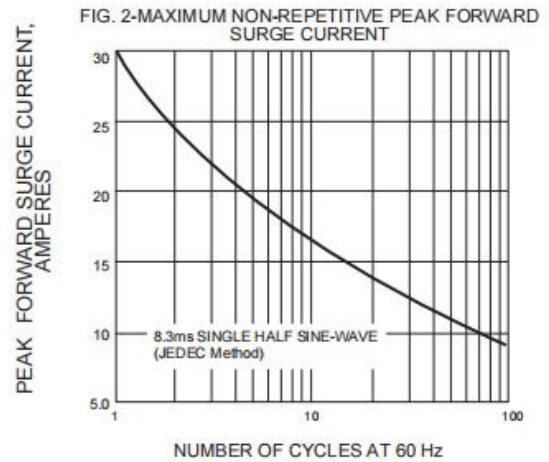
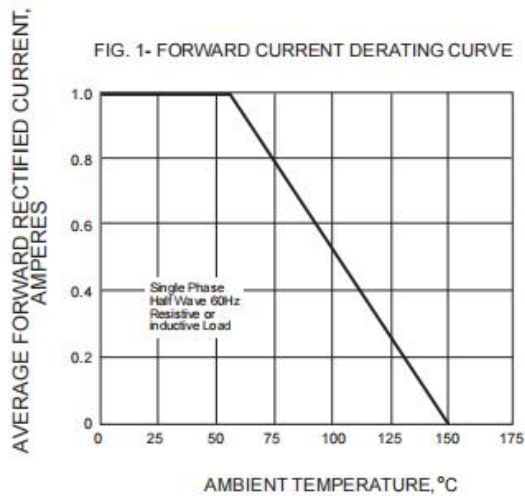
Characteristic 特性参数	Symbol 符号	US1 AF	US1 BF	US1 DF	US1 GF	US 1JF	US1 KF	US1 MF	Unit 单位
Repetitive Peak Reverse Voltage 重复峰值反向电压	$V_{RRM}$	50	100	200	400	600	800	1000	V
DC Reverse Voltage 直流反向电压	$V_R$	50	100	200	400	600	800	1000	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Forward Rectified Current 正向整流电流	$I_F$	1							A
Peak Surge Current 峰值浪涌电流	$I_{FSM}$	30							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	50							$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	$T_J, T_{stg}$	-50to+150 $^{\circ}\text{C}$							$^{\circ}\text{C}$

### ■ Electrical Characteristics 电特性

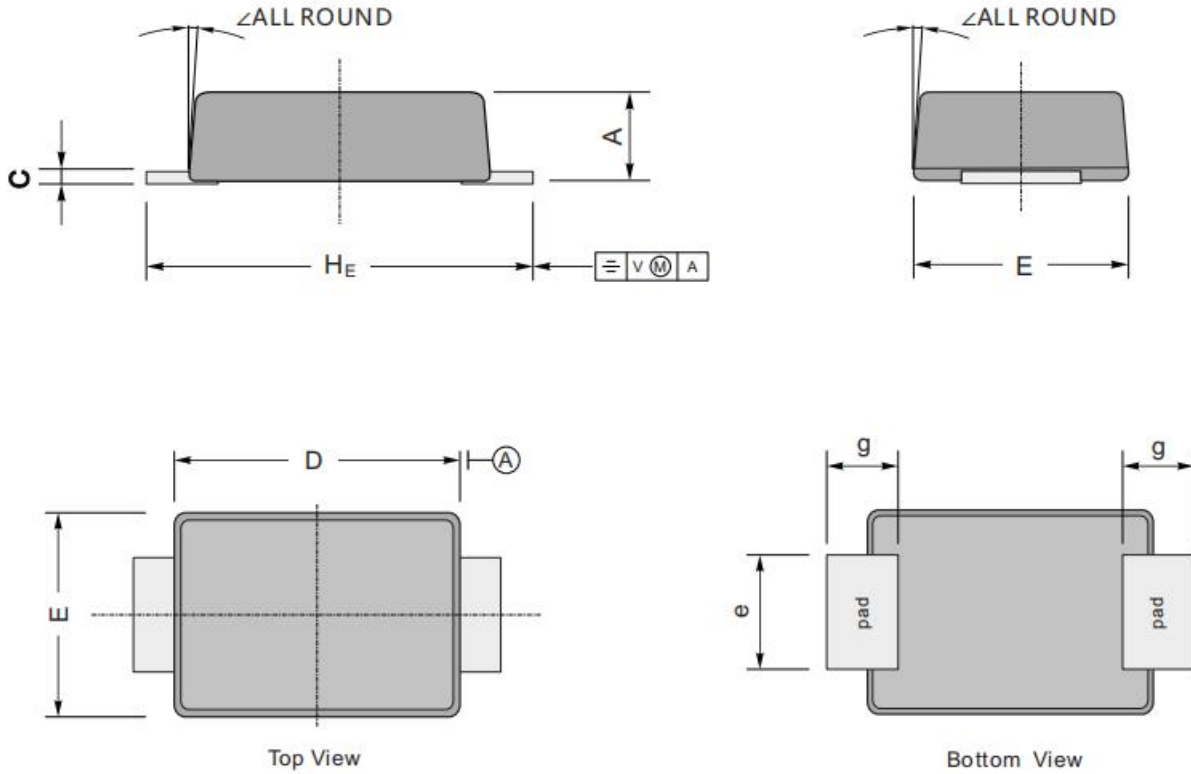
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

Characteristic 特性参数	Symbol 符号	US1AF-US1DF	US1GF	US1JF-US1MF	Unit 单位	Condition 条件
Forward Voltage 正向电压	$V_F$	1.0	1.4	1.7	V	$I_F=1\text{A}$
Reverse Current 反向电流	$I_R$	5( $T_A=25^{\circ}\text{C}$ ) 50( $T_A=100^{\circ}\text{C}$ )			$\mu\text{A}$	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	$T_{rr}$	50	75		nS	$I_F=0.5\text{A}, I_R=1\text{A}$ $I_{rr}=0.25\text{A}$
Junction Capacitance 结电容	$C_J$	15			pF	$V_R=4\text{V}, f=1\text{MHz}$

## ■ Typical Characteristic Curve 典型特性曲线



## Dimension 外形封装尺寸



UNIT		A	C	D	E	e	g	HE	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	