

**SMAF Super Fast Recovery Diode 超快恢复二极管**

■ **Features 特点**

- Fast Switching Speed 快的开关速度
- Super Fast Recovery time 超快恢复时间
- Glass passivated chip junction 玻璃钝化芯片保护结
- 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	ES 2AF	ES 2BF	ES 2CF	ES 2DF	ES 2EF	ES 2GF	ES 2JF	Unit 单位
Marking 印字		ES 2AF	ES 2BF	ES 2CF	ES 2DF	ES 2EF	ES 2GF	ES 2JF	
Repetitive Peak Reverse Voltage 重复峰值反向电压	$V_{RRM}$	50	100	150	200	300	400	600	V
DC Reverse Voltage 直流反向电压	$V_R$	50	100	150	200	300	400	600	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Forward Rectified Current 正向整流电流	$I_F$	2							A
Peak Surge Current 峰值浪涌电流	$I_{FSM}$	50							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	90							$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	$T_J, T_{stg}$	-50to+150							$^{\circ}\text{C}$

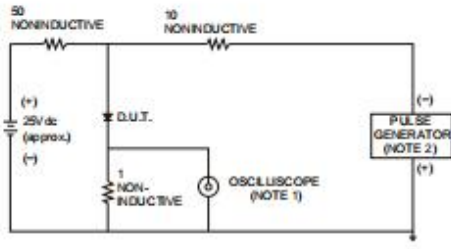
■ **Electrical Characteristics 电特性**

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

Characteristic 特性参数	Symbol 符号	ES2AF-ES2DF	ES2EF-ES2GF	ES2JF	Unit 单位	Condition 条件
Forward Voltage 正向电压	$V_F$	0.95	1.25	1.7	V	$I_F=2\text{A}$
Reverse Current 反向电流	$I_R$	5( $T_A=25^{\circ}\text{C}$ ) 500( $T_A=100^{\circ}\text{C}$ )			$\mu\text{A}$	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	$T_{rr}$	35			nS	$I_F=0.5\text{A}, I_R=1\text{A}$ $I_{rr}=0.25\text{A}$
Junction Capacitance 结电容	$C_J$	60			pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time=7ns max., Input Impedance= 1 megohm,22pF.  
2. Rise Time=10ns max., Source Impedance= 50 ohms.

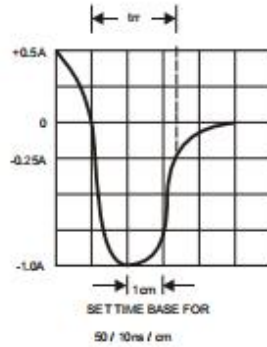


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

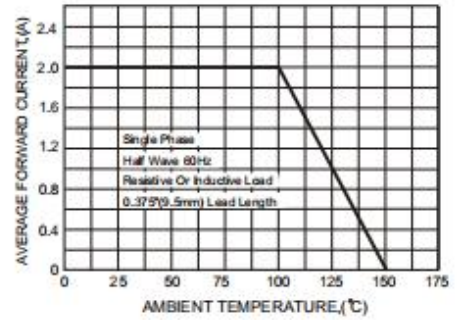


FIG.3-TYPICAL FORWARD CHARACTERISTICS

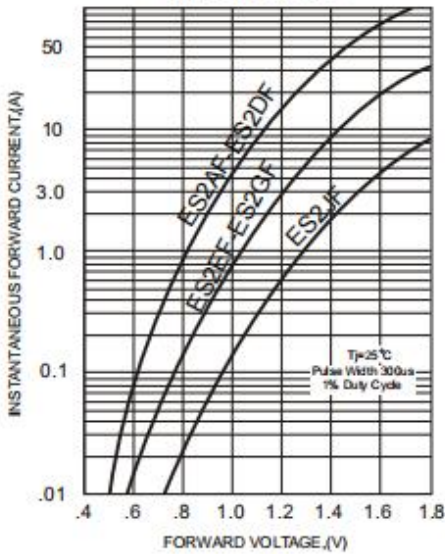


FIG.4-TYPICAL REVERSE CHARACTERISTICS

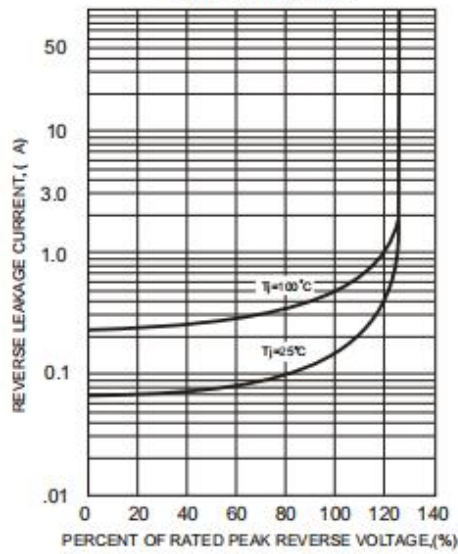


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

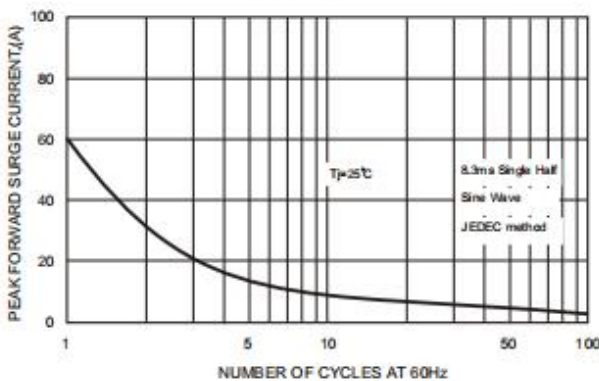
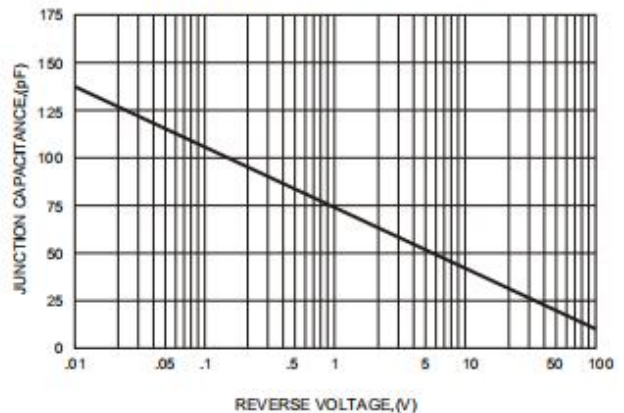
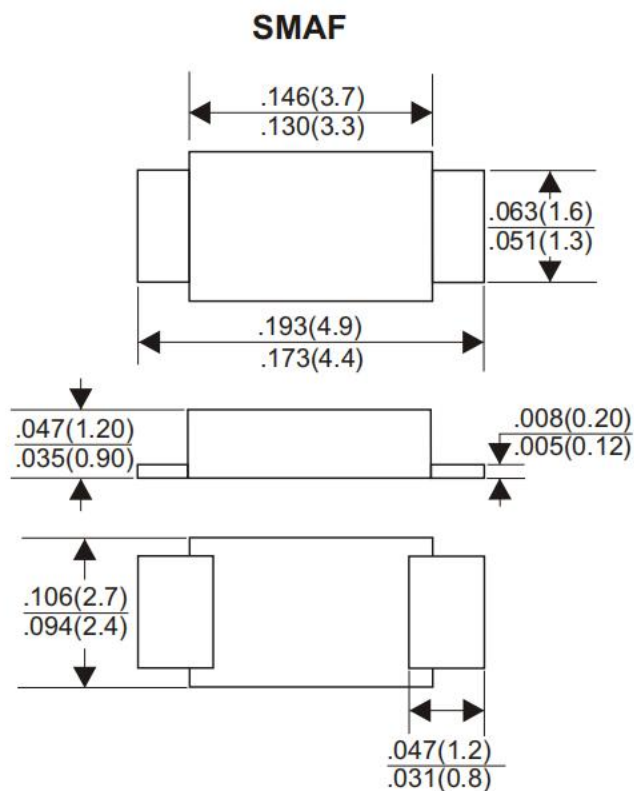


FIG.6-TYPICAL JUNCTION CAPACITANCE



■Dimension 外形封装尺寸



Dimensions in inches and (millimeters)