

SMA Super Fast Recovery Diode 超快恢复二极管

■ Features 特点

Built-in Strain Relief 内应力释放
Fast Switching Speed 快的开关速度
Super Fast Recovery time 超快恢复时间
Surface Mount Device 表面贴装器件
Case 封装:SMA(D0-214AC)



■ 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°C)

Characteristic 特性参数	Symbol 符号	ES1M	Unit 单位
Peak Reverse Voltage 反向峰值电压	V_{RRM}	1000	V
DC Reverse Voltage 直流反向电压	V_R	1000	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	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	$R_{\theta JA}$	80	$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	$-55\text{to}+150^{\circ}\text{C}$	$^{\circ}\text{C}$

■ Electrical Characteristics 电特性

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

Characteristic 特性参数	Symbol 符号	ES1M	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	1.7	V	$I_F=1\text{A}$
Reverse Current 反向电流	$I_R(25^{\circ}\text{C})$ (125°C)	5 100	μA	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	T_{rr}	70	nS	$I_F=0.5\text{A}, I_R=1\text{A}$ $I_{rr}=0.25\text{A}$
Diode Capacitance 二极管电容	C_D	15	pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

FIG.1-TYPICAL FORWARD CHARACTERISTICS

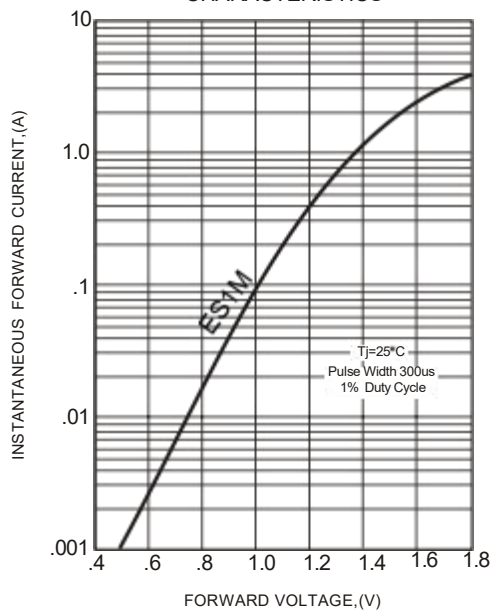


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

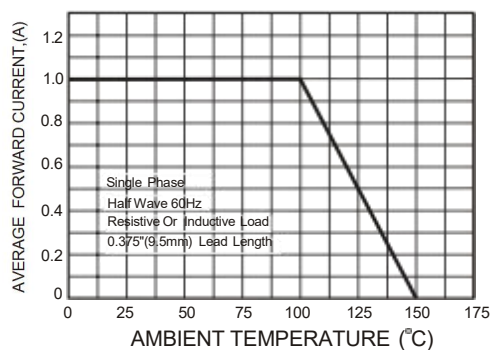


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

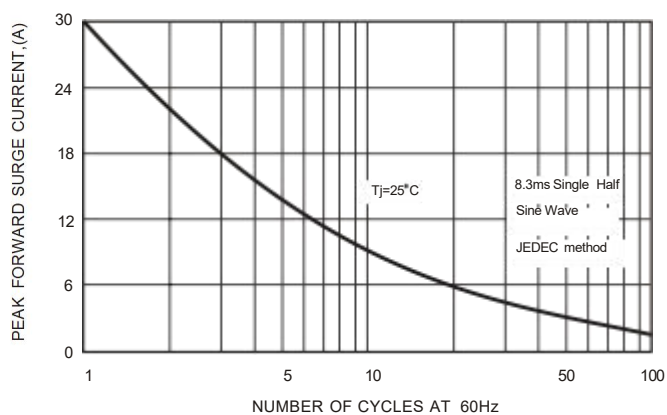
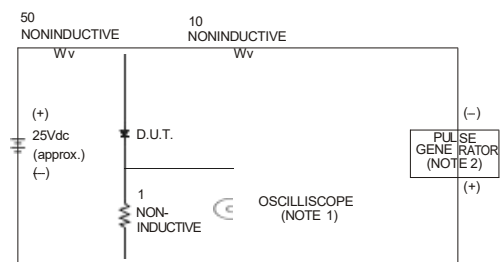


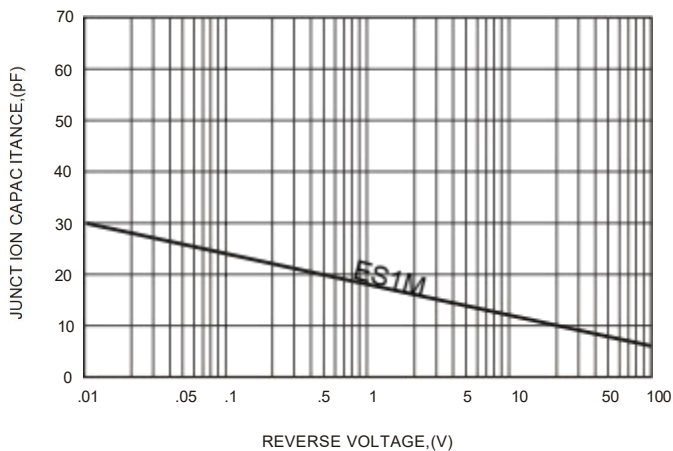
FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



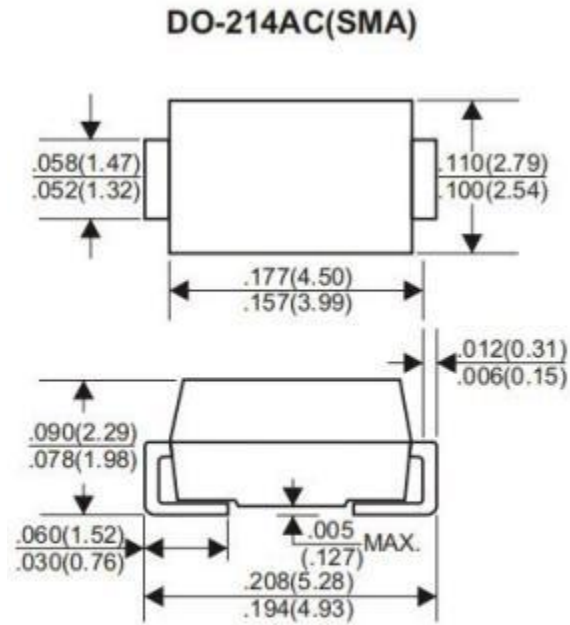
NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.

2. Rise Time = 10ns max., Source Impedance = 50 ohms.

FIG.5-TYPICAL JUNCTION CAPACITANCE



■Dimension 外形封装尺寸



Dimensions in inches and (millimeters)