

SMA Schottky Barrier Rectifier Diode 肖特基势垒整流二极管

■ **Features 特点**

Low forward voltage drop 低正向压降
High current capability 高电流能力
Surface mount device 表面贴装器件
Case 封装:SMA(DO-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	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	Unit 单位
Peak Reverse Voltage 反向峰值电压	V_{RRM}	20	30	40	50	60	80	90	100	V
DC Reverse Voltage 直流反向电压	V_R	20	30	40	50	60	80	90	100	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	14	21	28	35	42	56	63	70	V
Forward Rectified Current 正向整流电流	I_F	5								A
Peak Surge Current 峰值浪涌电流	I_{FSM}	120								A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	10								$^{\circ}\text{C}/\text{W}$
Junction Temperature 结温	T_J	150								$^{\circ}\text{C}$
Storage Temperature 储藏温度	T_{stg}	-65to+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	SS52-SS54	SS55-SS56	SS58-SS510	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	0.55	0.70	0.85	V	$I_F=5\text{A}$
Reverse Current 反向电流	$I_R(25^{\circ}\text{C})$ (100°C)	0.1 5		0.02 2	mA	$V_R=V_{RRM}$
Diode Capacitance 二极管电容	C_D	380			pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

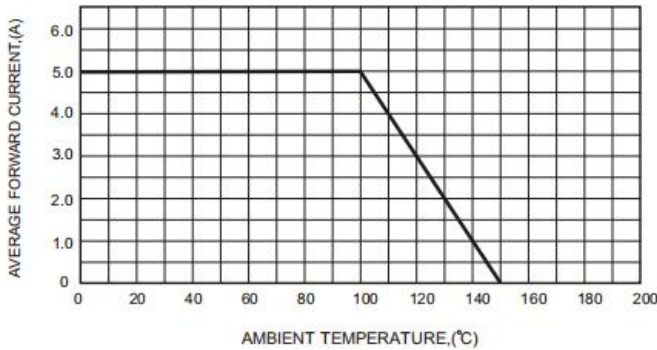


FIG.2-TYPICAL FORWARD CHARACTERISTICS

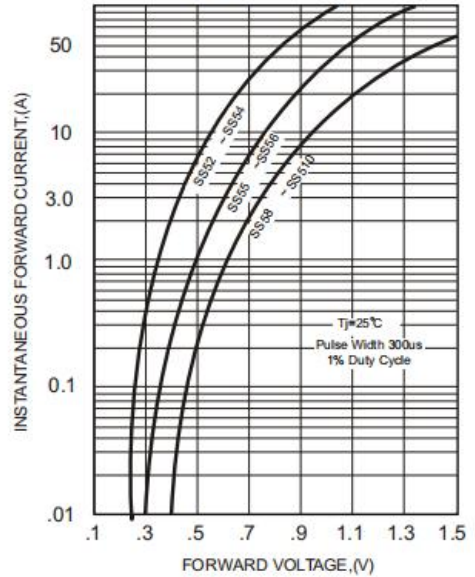


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

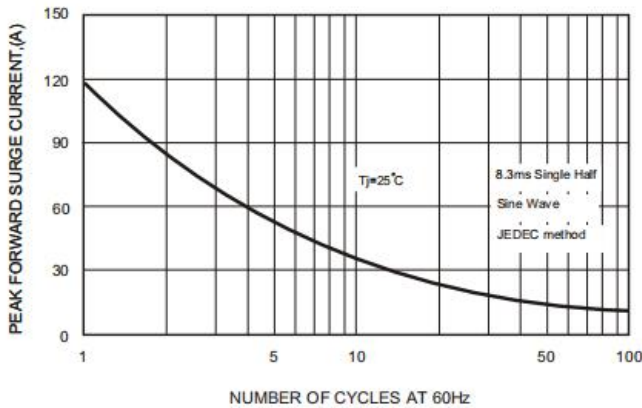


FIG.4-TYPICAL JUNCTION CAPACITANCE

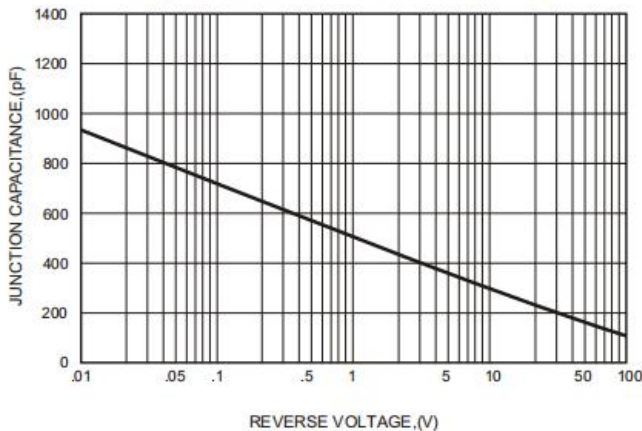
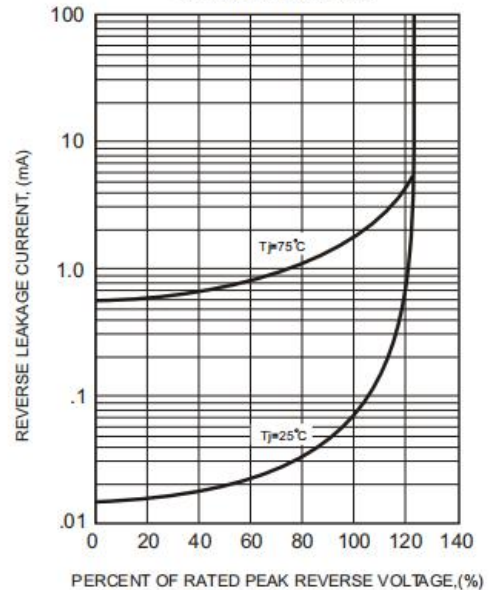


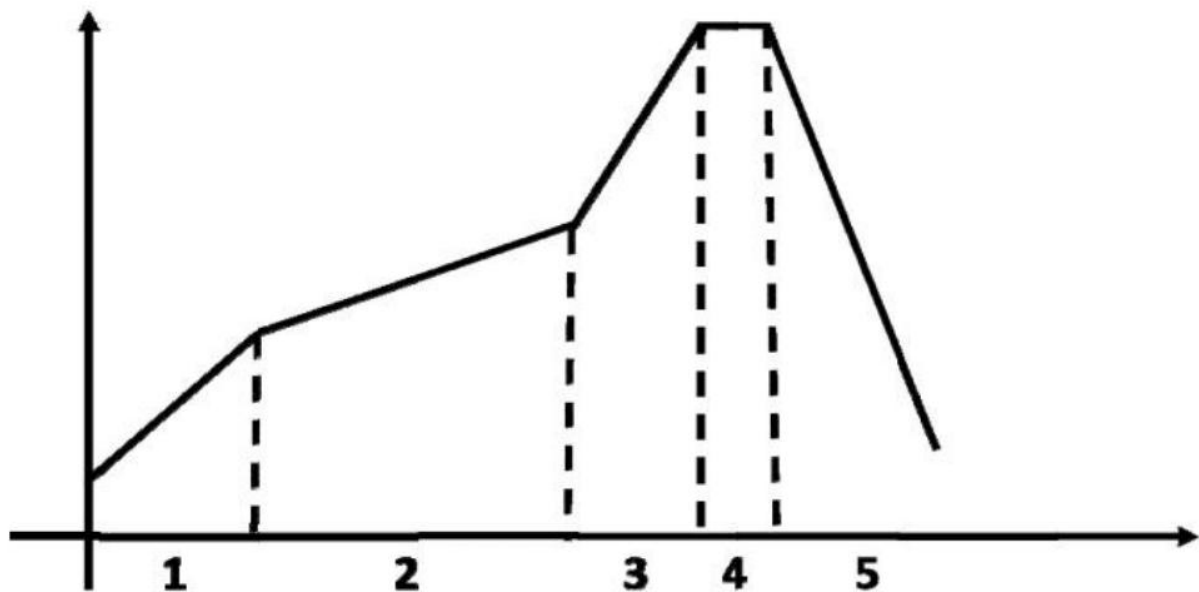
FIG.5 - TYPICAL REVERSE CHARACTERISTICS



■ Soldering Profile 焊接规范

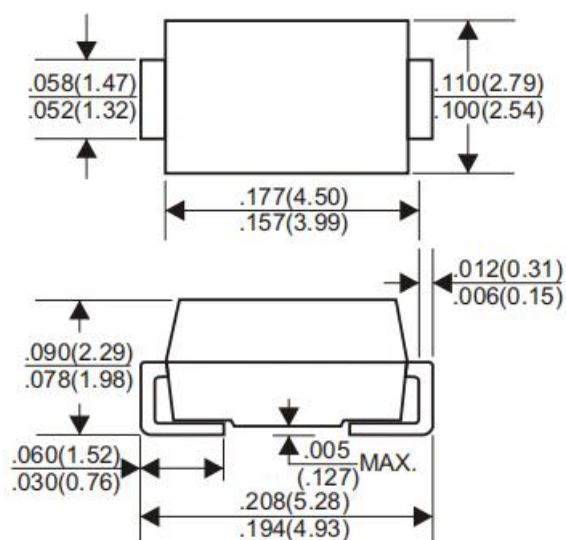
Profile Feature 阶段	Reflow Soldering 回流焊	Wave Soldering 波峰焊
1、Preheat Ramp up Rate 预热升温速率	1-4°C/S	1-7°C/S
2、Soak Temperature 浸润温度	150°C-200°C	110°C-140°C
Soak Time 浸润时间	60-180S	60-120S
3、Ramp up to Peak 峰温前升温速率	1-4°C/S	1-50°C/S
4、Peak Soak Temperature 峰温浸润温度	245°C-260°C	245°C-260°C
Peak Soak Time 峰温浸润时间	10S Max	10S Max
5、Ramp down Rate 降温速率	1-6°C/S Max	1-7°C/S

Pb free Assembly 无铅环保工艺



■Dimension 外形封装尺寸

DO-214AC(SMA)



Dimensions in inches and (millimeters)