

SMA General Purpose Rectifier Diode 通用整流二极管

■Features 特点

Low reverse leakage current 低反向漏电流
High surge current capability 高浪涌电流能力
Built-in strain relief 内应力释放
Surface mount device 表面贴装器件
Case 封装:SMA



■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	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit 单位
Marking 印字		M1	M2	M3	M4	M5	M6	M7	
Peak Reverse Voltage 反向峰值电压	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 and Storage Temperatur 结温和储藏温度	T_J, T_{stg}	$150^{\circ}\text{C}, -65\text{to}+150^{\circ}\text{C}$							

■Electrical Characteristics 电特性

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

Characteristic 特性参数	Symbol 符号	Min 最小值	Typ 典型值	Max 最大值	Unit 单位	Test Condition 测试条件
Forward Voltage 正向电压	V_F		1.0	1.1	V	$I_F=1\text{A}$
Reverse Current($T_A=25^{\circ}\text{C}/$) 反向电流($T_A=100^{\circ}\text{C}/$)	I_R			5 50	μA	$V_R=V_{RRM}$
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

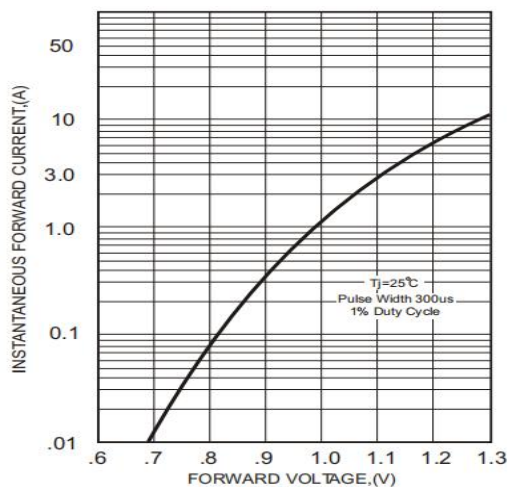


Figure 1: Forward Characteristics

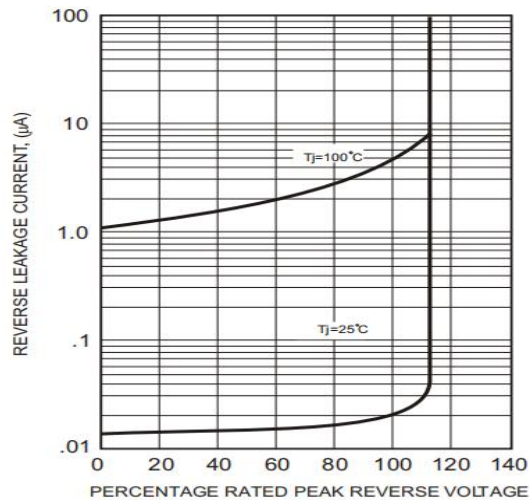


Figure 2: Reverse Characteristics

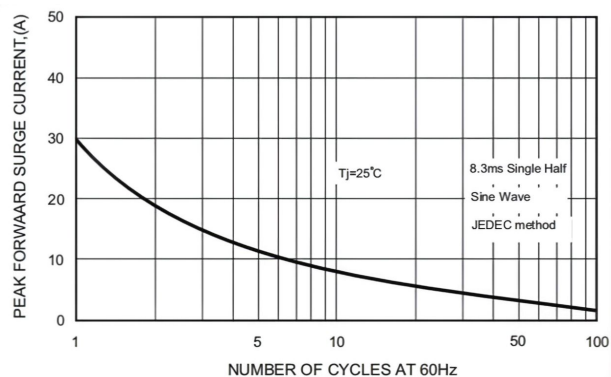


Figure 3: Surge Current Characteristics

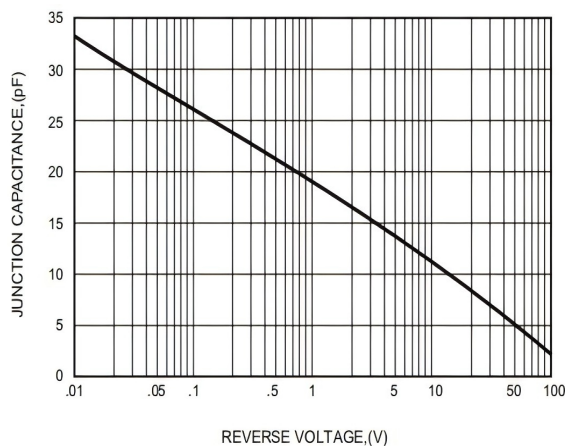


Figure 4: Junction Capacitance

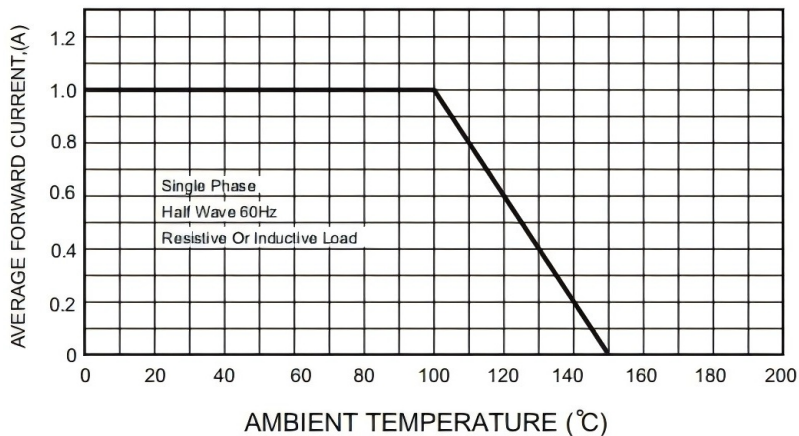
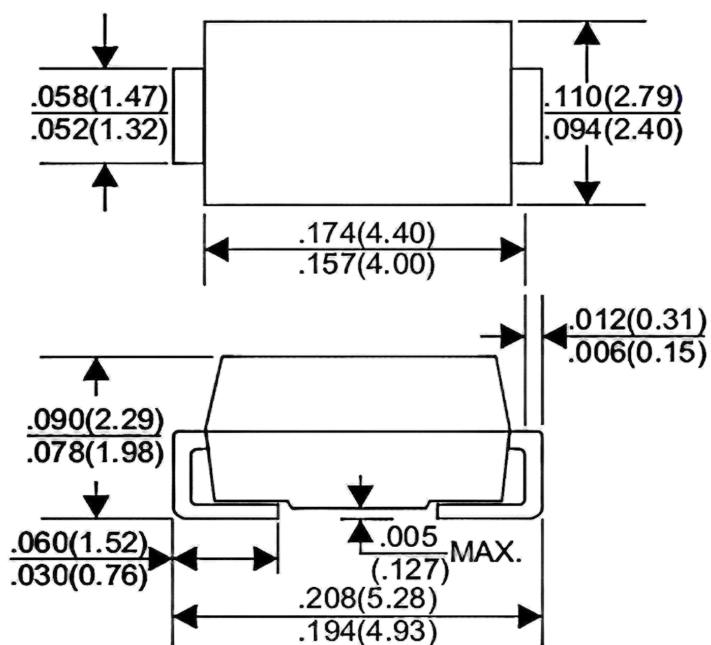


Figure 5: Forward Current Derating

■Dimension 外形封装尺寸

DO-214AC(SMA)



Dimensions in inches and (millimeters)