

SMC Fast Recovery Diode 快恢复二极管

■Features 特点

Built-in strain relief 内应力释放
Fast Recovery time 快恢复时间
Surface mount device 表面贴装器件
Case 封装:SMC



■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	RS 3AC	RS 3BC	RS 3DC	RS 3GC	RS 3JC	RS 3KC	RS 3MC	Unit 单位
Marking 印字		RS 3A	RS 3B	RS 3D	RS 3G	RS 3J	RS 3K	RS 3M	
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	3							A
Peak Surge Current 峰值浪涌电流	I_{FSM}	100							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	20							$^{\circ}\text{C/W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	$-50\text{to}+150^{\circ}\text{C}$							$^{\circ}\text{C}$

■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	RS3AC-RS3GC	RS3JC	RS3KC-RS3MC	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	1.3			V	$I_F=3\text{A}$
Reverse Current 反向电流	I_R	10($T_A=25^{\circ}\text{C}$) 350($T_A=125^{\circ}\text{C}$)			μA	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	T_{rr}	150	250	500	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-TYPICAL FORWARD CHARACTERISTICS

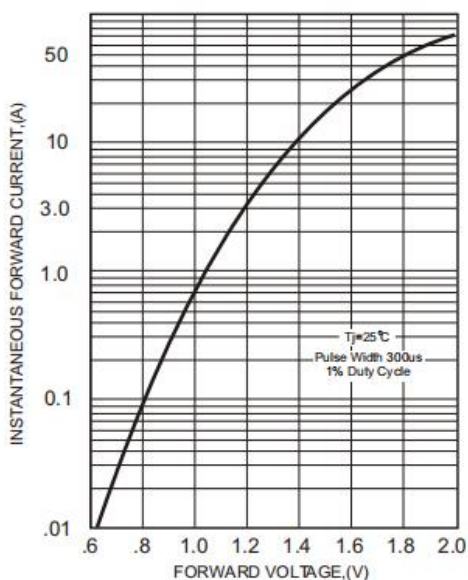


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

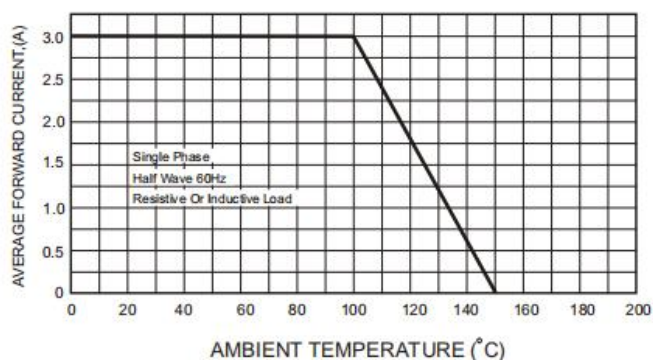
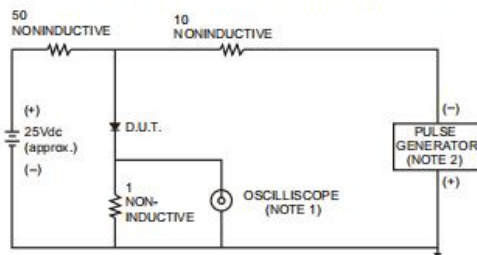


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

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

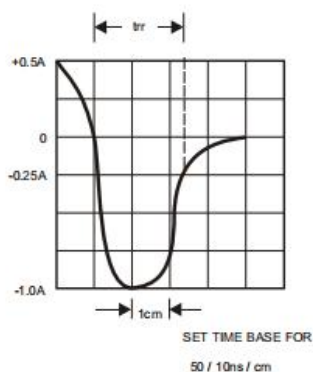


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

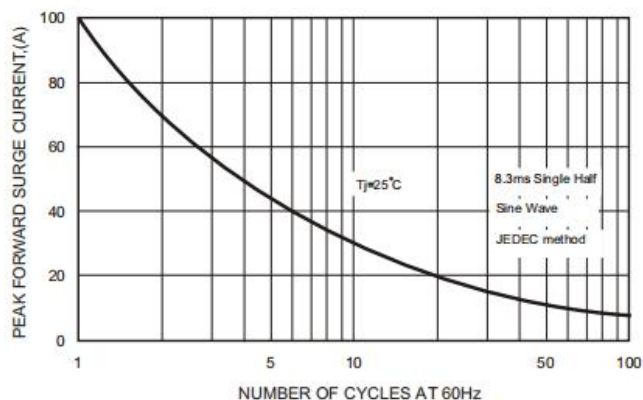
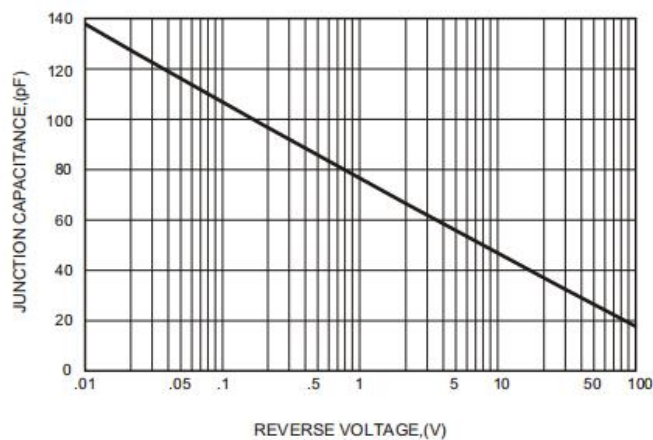
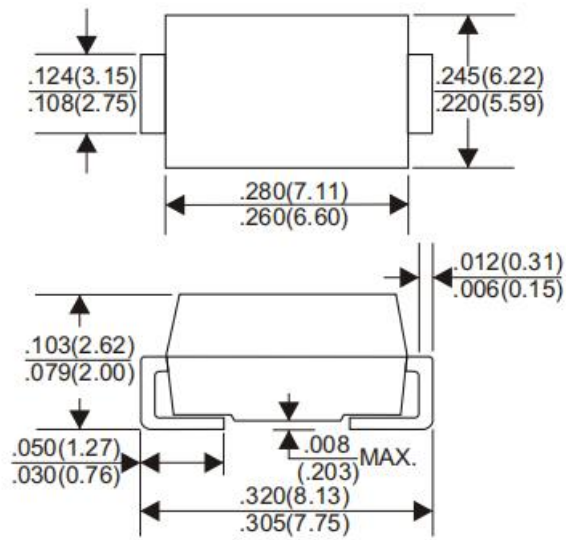


FIG.5-TYPICAL JUNCTION CAPACITANCE



■Dimension 外形封装尺寸

DO-214AB(SMC)



Dimensions in inches and (millimeters)