



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

SGP1RWS-SGP7RWS

SOD-323 Fast Recovery Diode 快恢复二极管

■Features 特点

Fast Recovery time 快恢复时间
 Surface mount device 表面贴装器件
 Glass Passivated Chip Junction 玻璃钝化
 Case 封装:SOD-323



■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	SGP1 RWS	SGP2 RWS	SGP3 RWS	SGP4 RWS	SGP5 RWS	SGP6 RWS	SGP7 RWS	Unit 单位
Marking 印字		1R	2R	3R	4R	5R	6R	7R	
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	1							A
Peak Surge Current 峰值浪涌电流	I_{FSM}	15							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	80							$^{\circ}\text{C/W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	-55to+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	SGP1RWS-SGP4RWS	SGP5RWS	SGP6RWS-SGP7RWS	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	1.3			V	$I_F=1\text{A}$
Reverse Current 反向电流	I_R	5($T_A=25^{\circ}\text{C}$) 50($T_A=100^{\circ}\text{C}$)			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	5			pF	$V_R=4\text{V}$, $f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

Fig.1 Forward Current Derating Curve

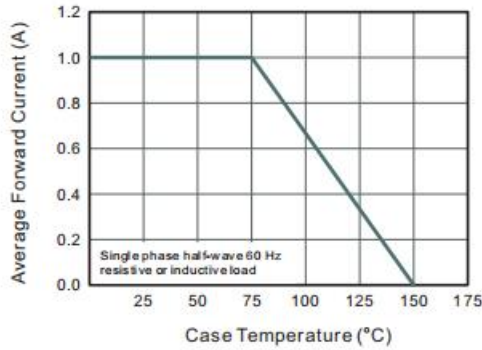


Fig.2 Typical Instaneous Reverse Characteristics

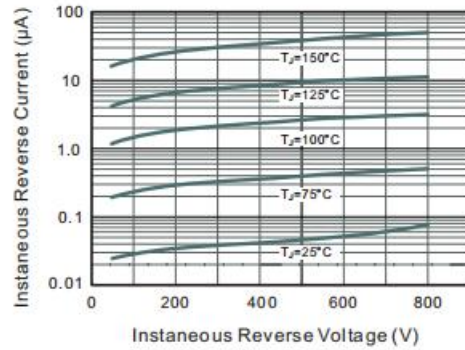


Fig.3 Typical Forward Characteristic

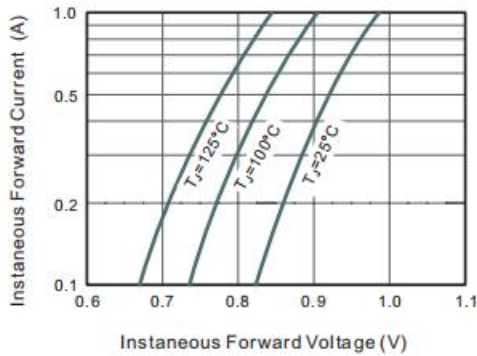


Fig.4 Typical Junction Capacitance

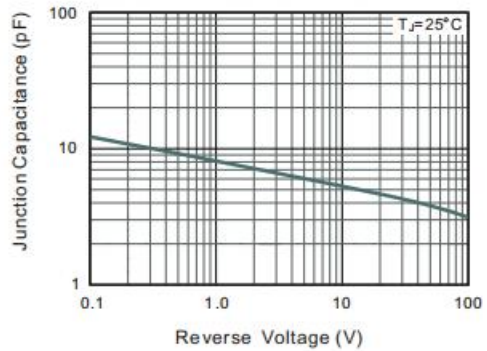
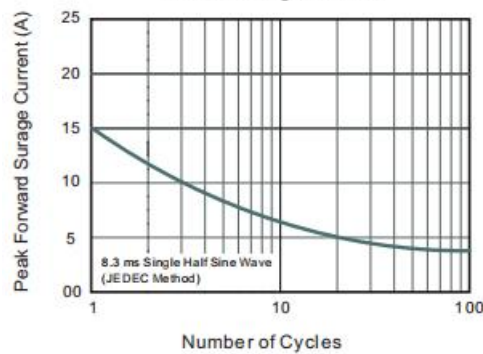
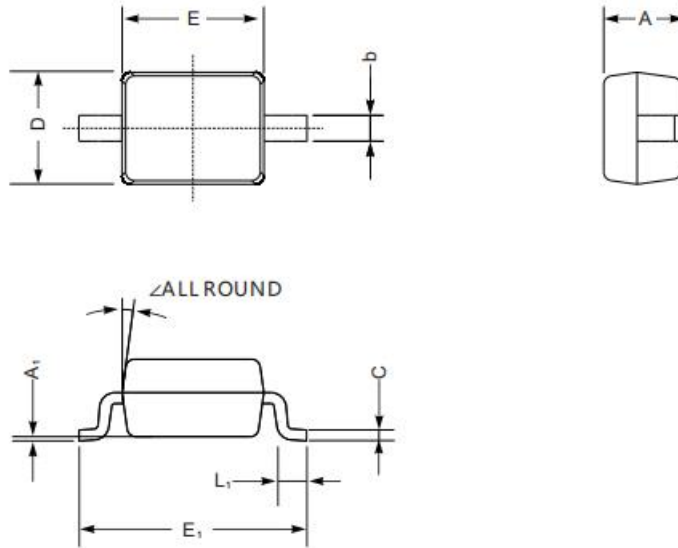


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



■Dimension 外形封装尺寸



SOD-323 mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	