



# 安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

1N4148WT

## SOD-523 Switching Diode 开关二极管

### ■Features 特点

Fast Switching Speed 快的开关速度

Surface mount device 表面贴装器件

High Conductance 高电导率

Case 封装:SOD-523

Marking 印字: T4



### ■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  $25^{\circ}\text{C}$ )

Characteristic 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Non-Repetitive Peak Reverse Voltage 不重复反向峰值电压	$V_{RM}$	100	V
DC Reverse Voltage 直流反向电压	$V_R$	75	V
Forward Rectified Output Current 正向工作电流	$I_O$	125	mA
Non-Repetitive Peak Surge Current@ $t=1\mu\text{s}$ 不重复峰值浪涌电流@ $t=100\text{mS}$	$I_{FSM}$	2 1	A
Power Dissipation 耗散功率	$P_D$	150	mW
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	833	$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	$T_J, T_{stg}$	-50to+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  $25^{\circ}\text{C}$ )

Characteristic 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位	Condition 条件
Reverse Voltage 反向电压	$V_R$	75		V	$I_R=1\mu\text{A}$
Forward Voltage 正向电压	$V_F$		0.715 0.855 1.0 1.25	V	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$
Reverse Current 反向电流	$I_R$		1 25 50 30	$\mu\text{A}$ nA $\mu\text{A}$ $\mu\text{A}$	$V_R=75\text{V}$ $V_R=20\text{V}$ $V_R=75\text{V } T_J=150^{\circ}\text{C}$ $V_R=20\text{V } T_J=150^{\circ}\text{C}$
Junction Capacitance 结电容	$C_J$		2	pF	$V_R=4\text{V}, f=1\text{MHz}$
Revers Recovery Time 反向恢复时间	$T_{rr}$		4	nS	$I_{rr} = 0.1 * I_R, I_F = I_R = 10\text{mA}, R_L = 100\Omega$

## Typical Characteristic Curve 典型特性曲线

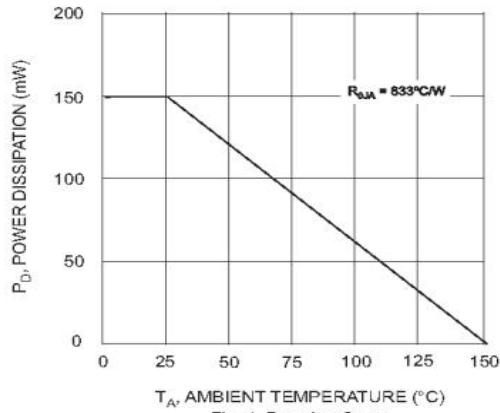


Fig. 1 Derating Curve

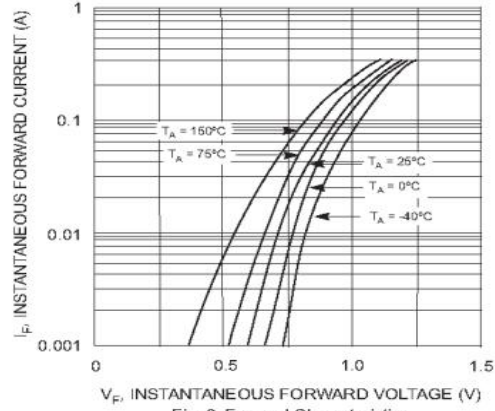


Fig. 2 Forward Characteristics

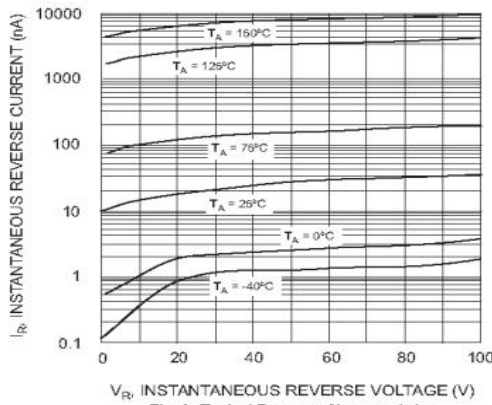


Fig. 3 Typical Reverse Characteristics

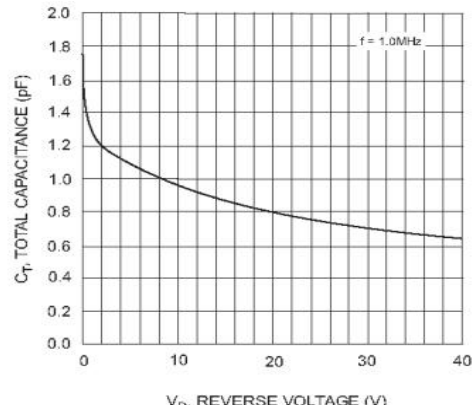
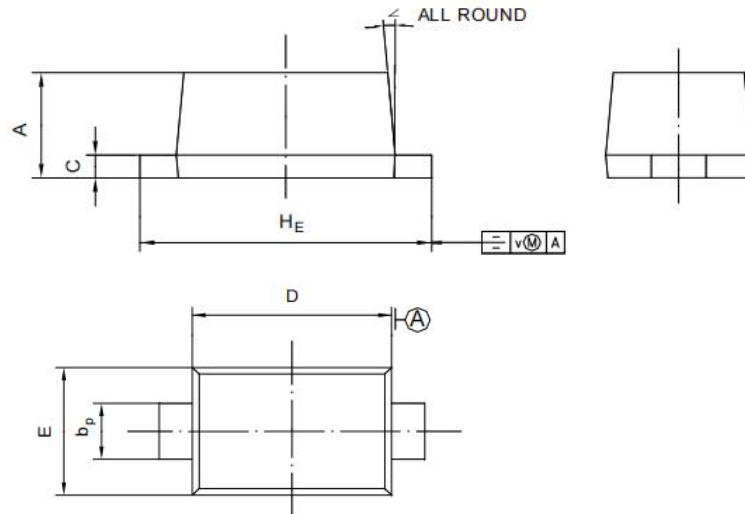


Fig. 4 Typical Capacitance vs. Reverse Voltage

## Dimension 外形封装尺寸



UNIT	A	$b_p$	C	D	E	$H_E$	V	$\angle$
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5 $^{\circ}$