1N4148WT

Rev.C Oct.-2024

DATA SHEET

描述 / Descriptions

SOD-523 塑封封装 硅半导体二极管。

Silicon Diode in a SOD-523 Plastic Package.

特征 / Features

开关速度快，无卤产品。

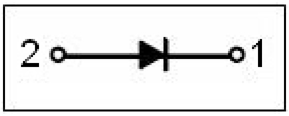
Fast switching diodes,HF Product.

用途 / Applications

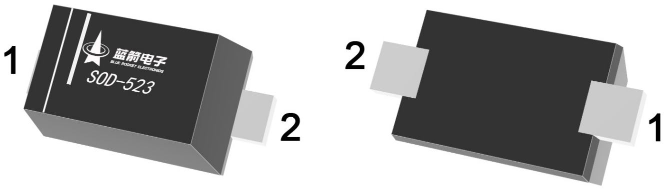
用于小信号处理。

Small signal diode.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1:Cathode PIN2:Anode

印章代码 / Marking

Marking	T4

极限参数 / Absolute Maximum Ratings(Ta=25℃)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	150	mA
Non-reptitive Peak Forward Surge Current	I_{FSM}（t=1ms）	0.8	A
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	-55～150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

电性能参数 / Electrical Characteristics(Ta=25℃)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=1μA	75			V
Forward Voltage	V_F	I_F=1mA			0.715	V
		I_F=10mA			0.855	V
		I_F=50mA			1.00	
		I_F=150mA			1.25	
Instantaneous Reverse Current	I_R	V_R=20V T_j = 25 °C			0.025	μA
		V_R=75V T_j = 25 °C			1	
Junction Capacitance	C_j	V_R=0V f=1MHz			2	pF
Maximum Reverse Recovery Time	t_{rr}	I_F = 10m A I_R = 10mA I_{rr} = 1m A R_L=100Ω			4	ns

电参数曲线图 / Electrical Characteristic Curve

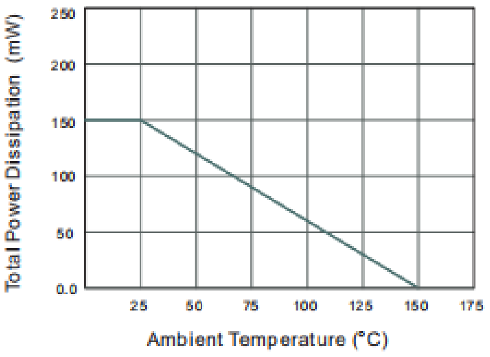


Fig.1 Power Derating Curve

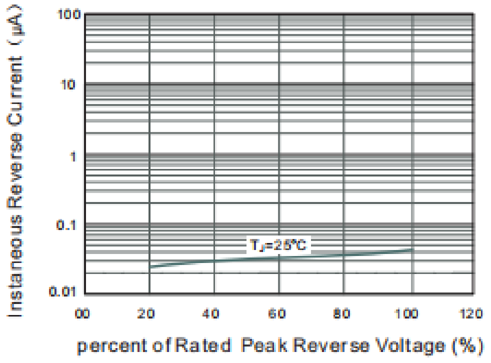


Fig.2 Typical Reverse Characteristics

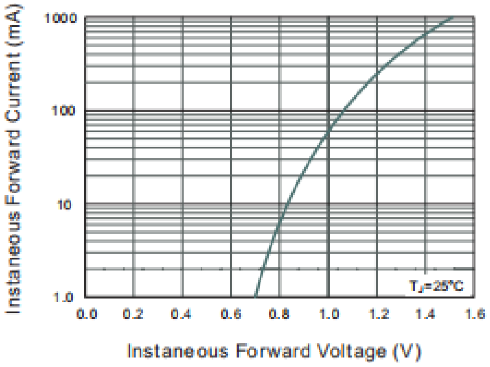


Fig.3 Typical Instaneous Forward Characteristics

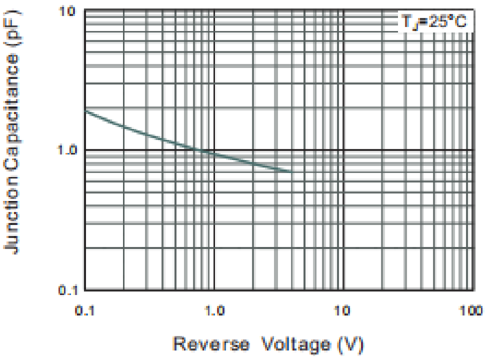
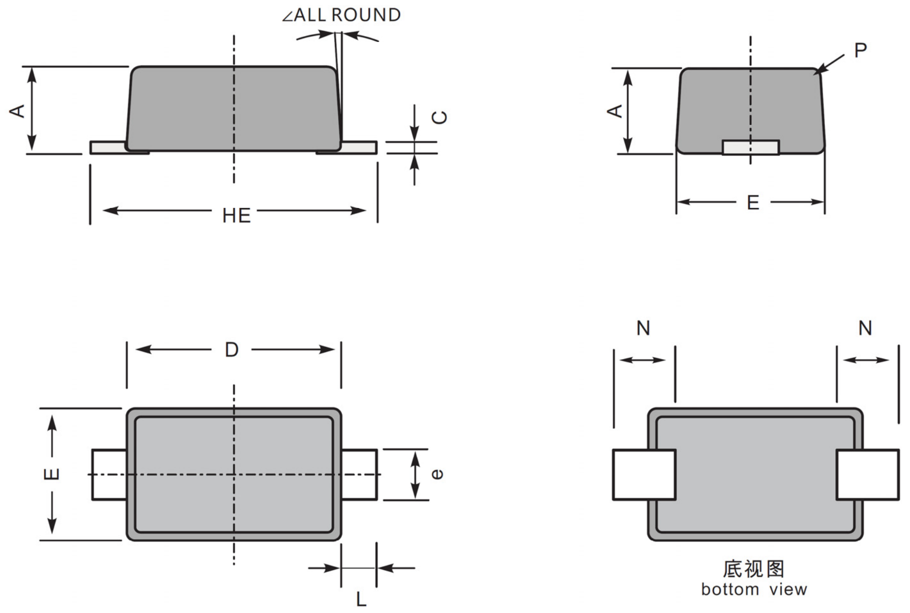


Fig.4 Typical Junction Capacitance

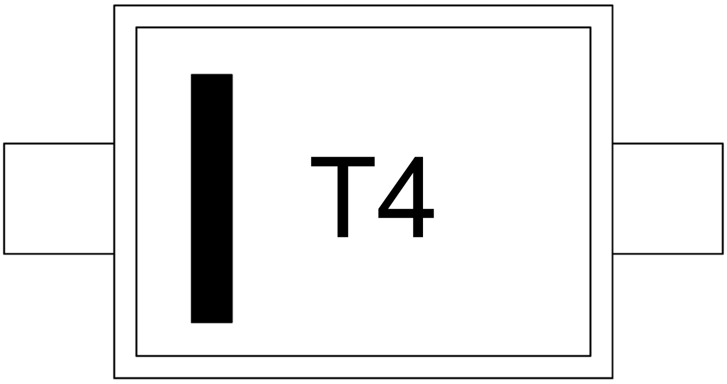
外形尺寸图 / Package Dimensions

SOD-523



UNIT		A	e	C	D	E	HE	N	L	P	∠
mm	max	0.77	0.35	0.15	1.30	0.99	1.70	0.35 ref	0.2 ref	R0.1 ALL ROUND	10° ±1°
	min	0.51	0.25	0.08	1.10	0.75	1.50				
mil	max	30	14	6	51	39	67	14 ref	8.0 ref	R4.0 ALL ROUND	
	min	20	10	3	43	30	59				

印章说明 / Marking Instructions



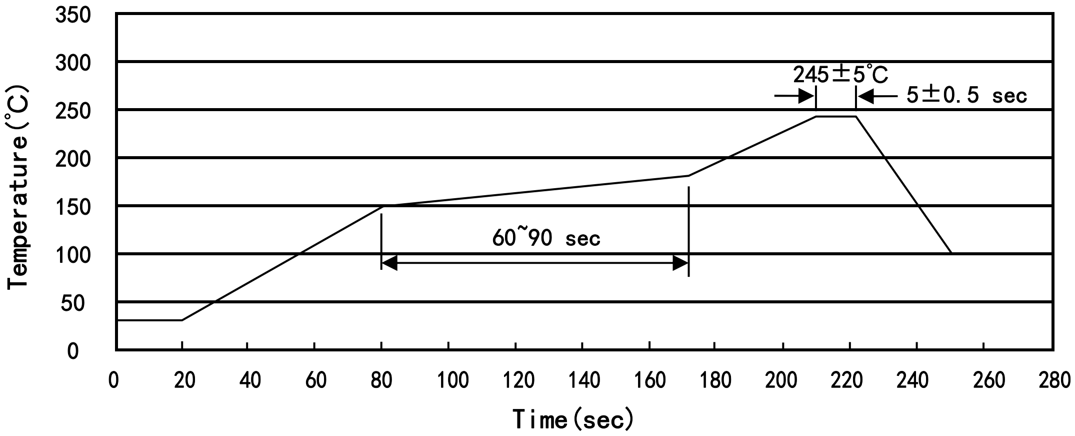
说明：

T4：为型号代码

Note:

T4: Product Type Code

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

1、预热温度 150～180℃，时间 60～90sec;

2、峰值温度 245±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:150~180℃, Time:60~90sec.

2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5℃ 时间：10±1 sec.

Temp.:260±5℃ Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit：mm³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-523	3,000	10	30,000	6	180,000	7″ ×8	180×120×180	390×385×205

使用说明 / Notices