

# 1N4148WS

## SILICON EPITAXIAL PLANAR SWITCHING DIODE

Forward Current:150mA

Reverse Voltage:100V

### FEATURES

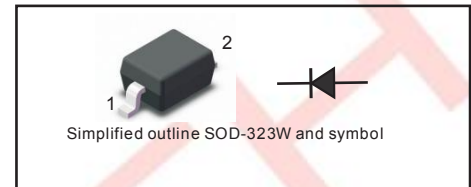
- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- ◆ Case: SOD-323W
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 5.48mg / 0.00019oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4148WS	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS voltage	$V_{RMS}$	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at 1s at 1ms at 1us	$I_{FSM}$	0.5 1 4	A
Total Power Dissipation	$P_{tot}$	400	mW
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

### Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbols	1N4148WS	Units
Reverse Breakdown Voltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage at 1 mA at 10 mA at 50 mA at 150 mA	$V_F$	0.715 0.855 1.00 1.25	V
Peak Reverse Current at $V_R=20V$ $T_j=25\text{ °C}$ at $V_R=75V$ $T_j=25\text{ °C}$ at $V_R=25V$ $T_j=150\text{ °C}$ at $V_R=75V$ $T_j=150\text{ °C}$	$I_R$	0.025 1 30 50	$\mu A$
Typical Junction Capacitance $f=1MHz, V_R=0V$	$C_j$	2	pF
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	4	ns

(1) Measured with  $I_F=I_R=10mA, I_{rr}=0.1xI_R, R_L=100\Omega$

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## RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

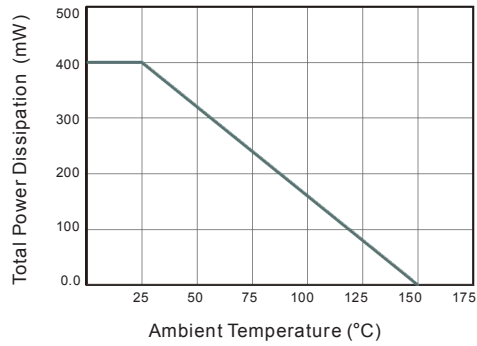


Fig.2 Typical Reverse Characteristics

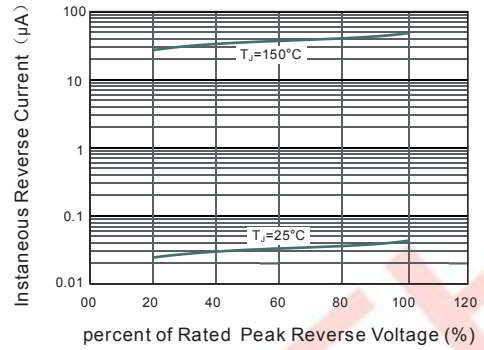


Fig.3 Typical Instantaneous Forward Characteristics

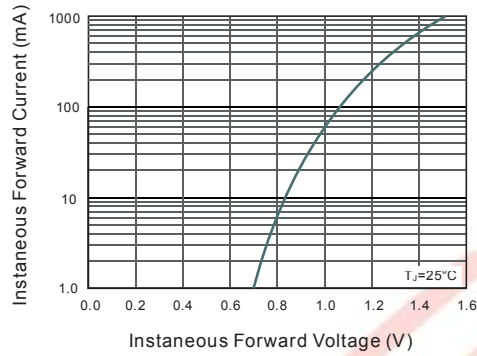
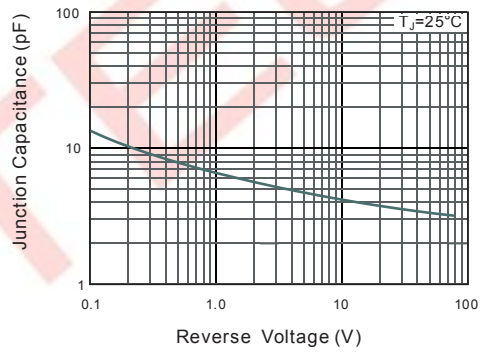


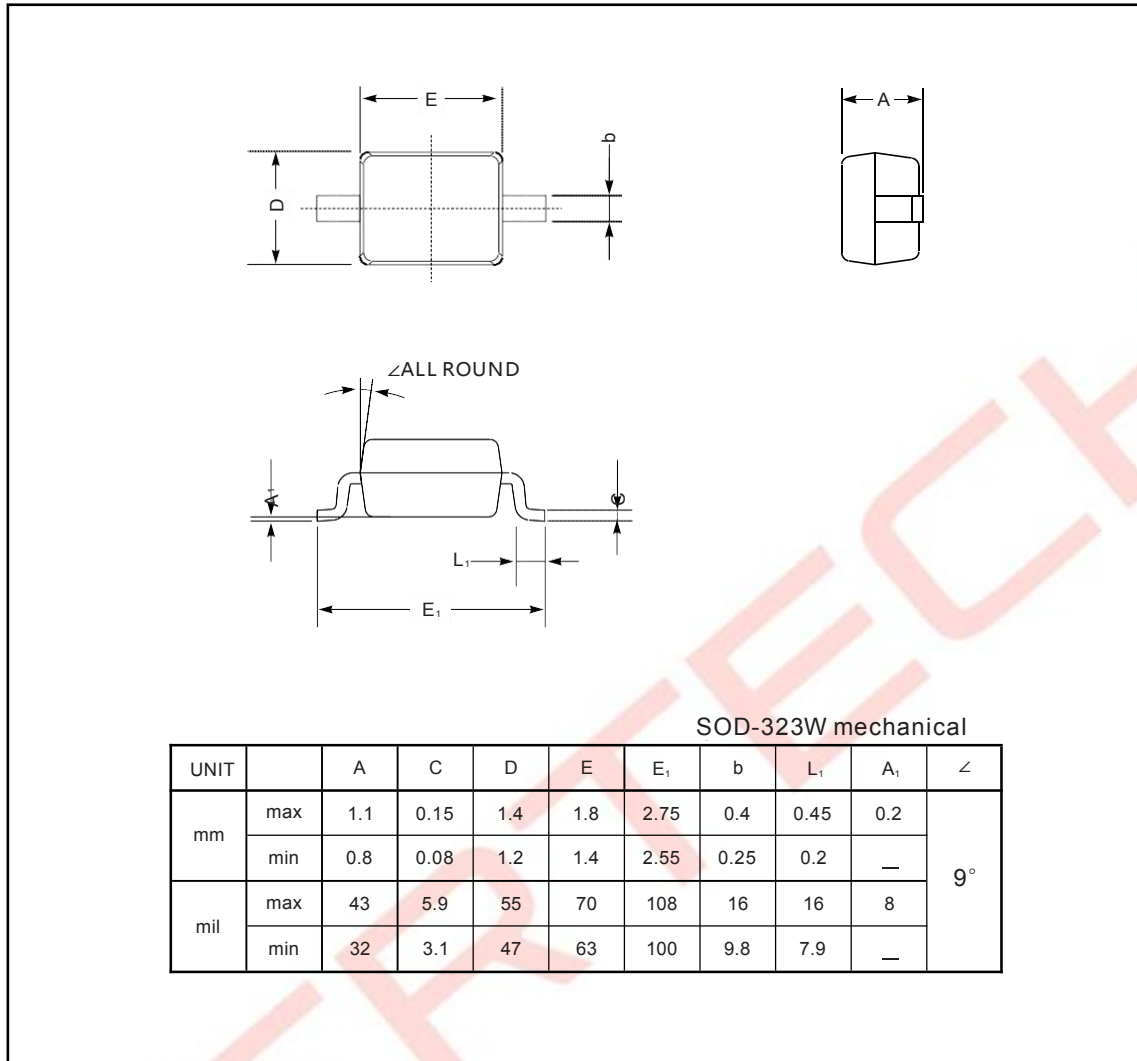
Fig.4 Typical Junction Capacitance



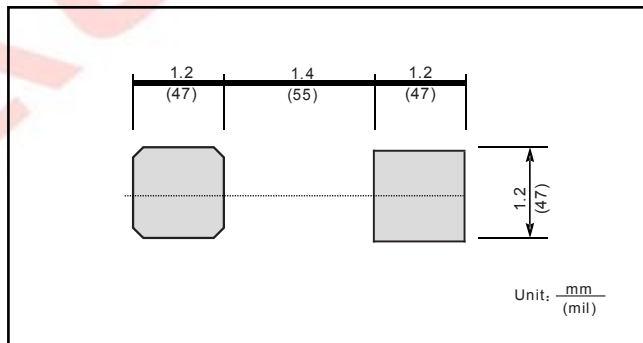
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## PACKAGE OUTLINE

### SOD-323W



#### The recommended mounting pad size



#### Marking

Type number	Marking code
1N4148WS	T4