

1N4148HWS

SILICON EPITAXIAL PLANAR SWITCHING DIODE

Forward Current:150mA

Reverse Voltage:100V

FEATURES

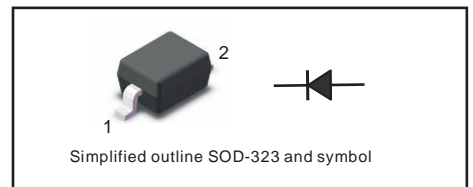
- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SOD-323 and symbol

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4148HWS	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	1N4148HWS	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	μA
Typical Junction Capacitance $f=1\text{ MHz}, V_R=0V$	C_j	2	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	4	ns

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

Dated:08/2018

Rev: 3.0

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

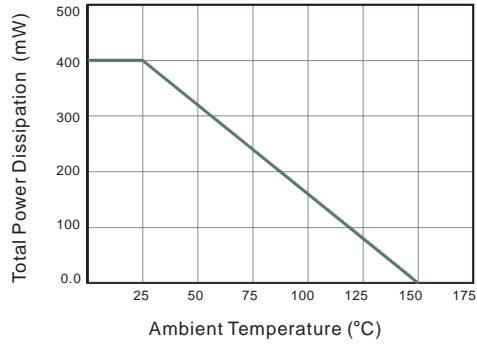


Fig.2 Typical Reverse Characteristics

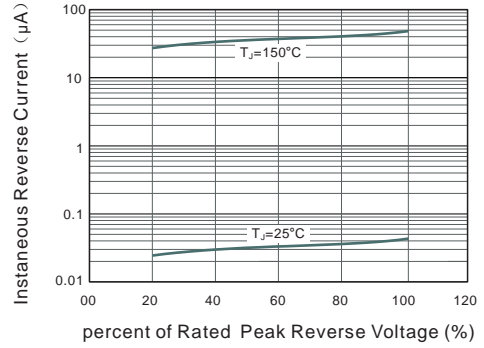


Fig.3 Typical Instantaneous Forward Characteristics

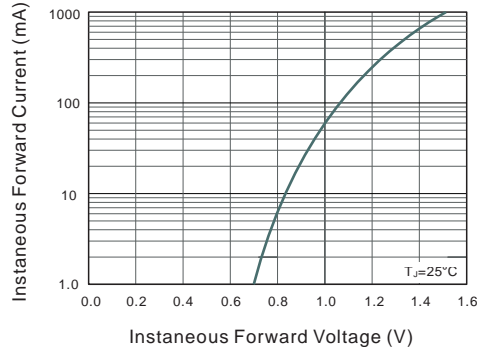
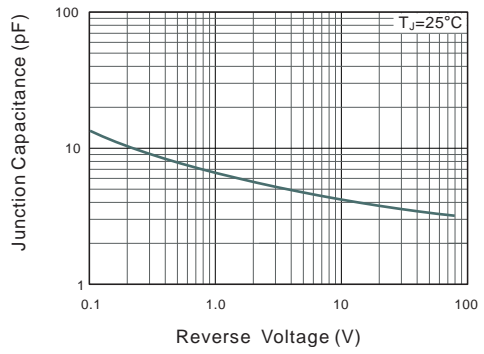


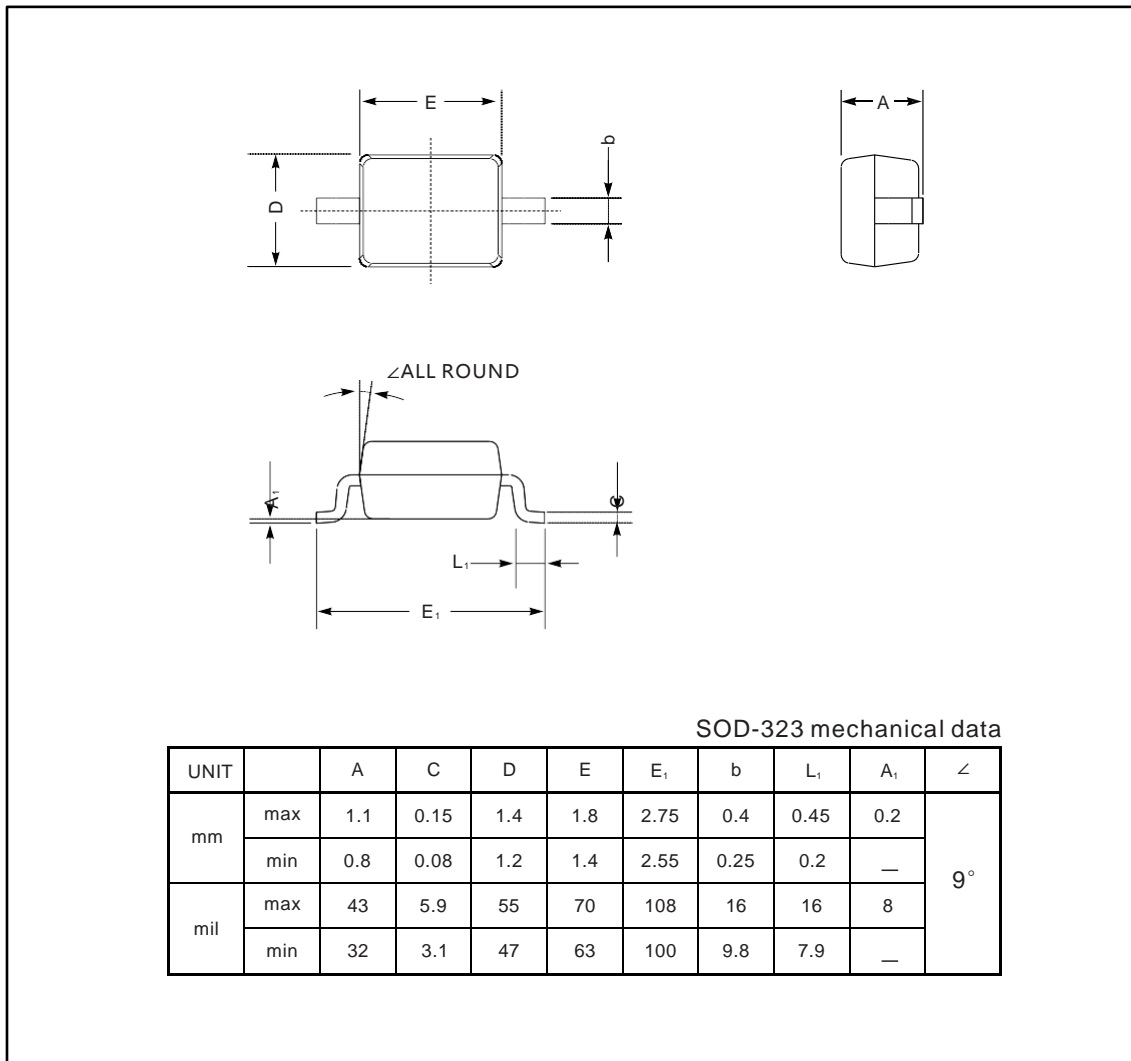
Fig.4 Typical Junction Capacitance



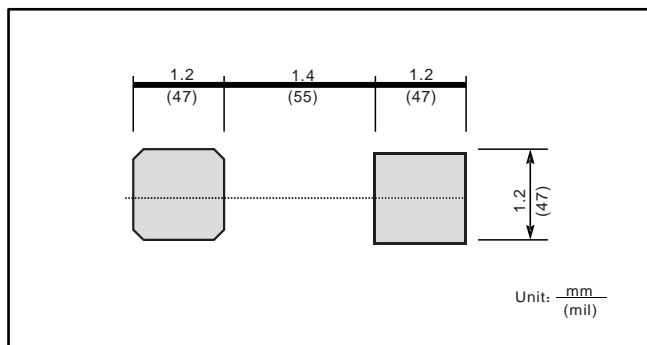
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PACKAGE OUTLINE

SOD-323



The recommended mounting pad size



Marking

Type number	Marking code
1N4148HWS	T4