

1N4148WS

SILICON EPITAXIAL PLANAR SWITCHING DIODE

Forward Current-300mA Reverse Voltage-100V

FEATURES

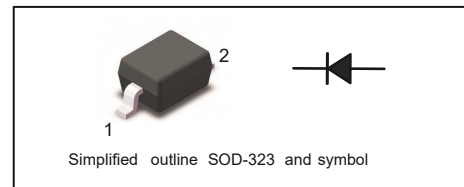
- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-323
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

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
Continuous Forward Current	I_F	300	mA
Non-repetitive Peak Forward Surge Current at 1ms	I_{FSM}	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 m A at 10 m A at 50 m A at 150 m A	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	C_J	5	pF
Maximum Reverse Recovery Time	t_{rr} Typical	8	ns

Fig.1 Forward Current Derating Curve

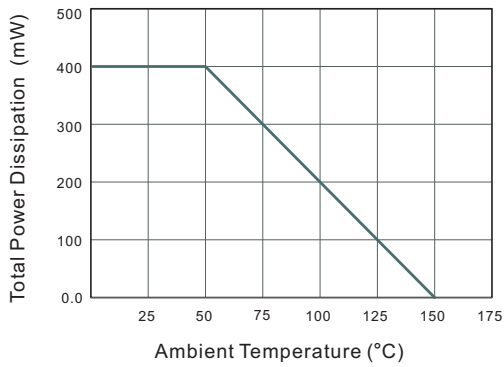


Fig.2 Typical Reverse Characteristics

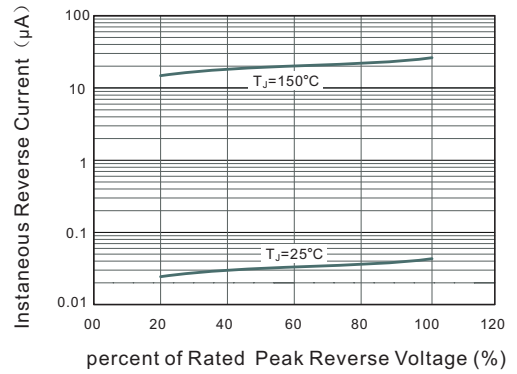


Fig.3 Typical Instantaneous Forward Characteristics

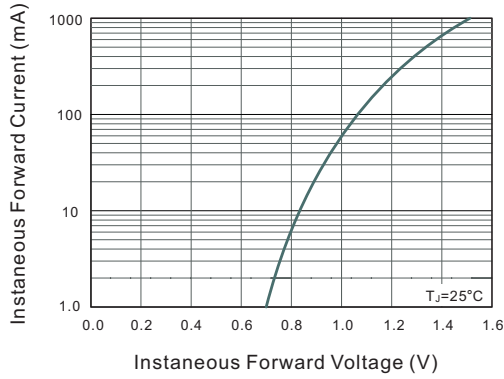
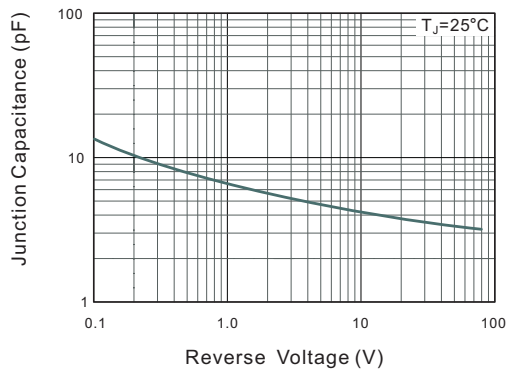


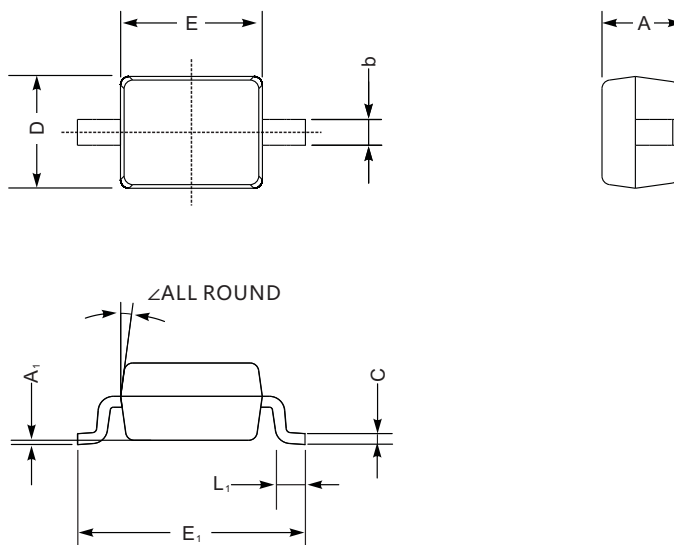
Fig.4 Typical Junction Capacitance



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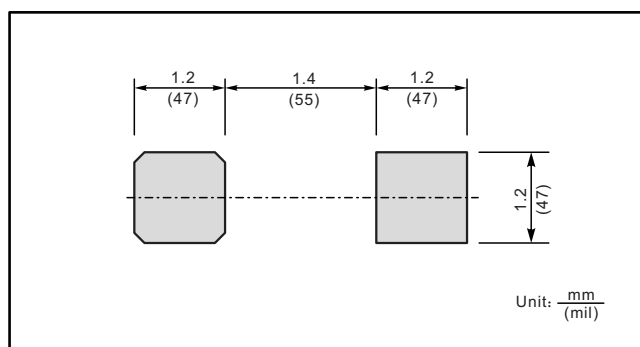
PACKAGE OUTLINE

SOD-323



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	—	

THE RECOMMENDED MOUNTING PAD SIZE



ORDER INFORMATION

Device	Package	Shipping
1N4148WS	SOD-323	3000PCS/Reel&Tape(7inch)

Dated:06/2017
Rev: 2.0