



1N4148WSE

High-speed Switching Rectifiers

FEATURES

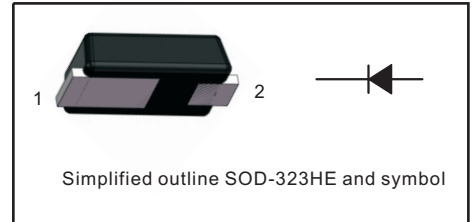
- For surface mounted applications
- Ideal for automated placement
- Low junction capacitance
- Low leakage current
- For general purpose switching applications

MECHANICAL DATA

- Case: SOD-323HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.4mg/0.00019oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4148WSE	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	1N4148WSE	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 $f=1MHz, V_R=0V$	C_j	2	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	4	ns

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



Fig.1 Power Derating Curve

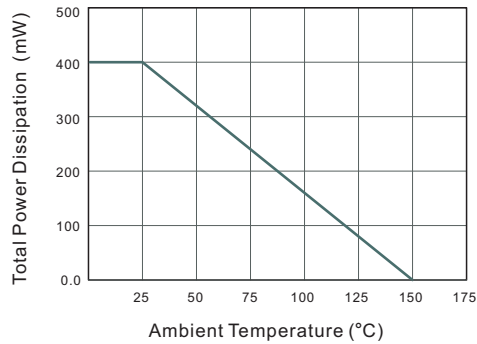


Fig.2 Typical Reverse Characteristics

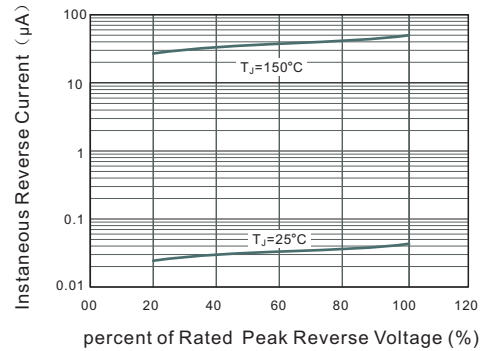


Fig.3 Typical Instantaneous Forward Characteristics

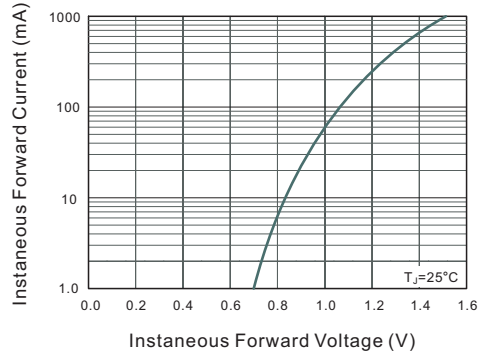
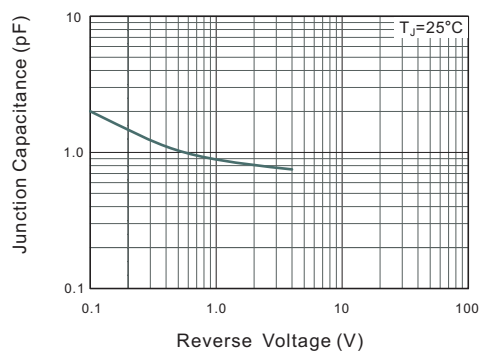


Fig.4 Typical Junction Capacitance



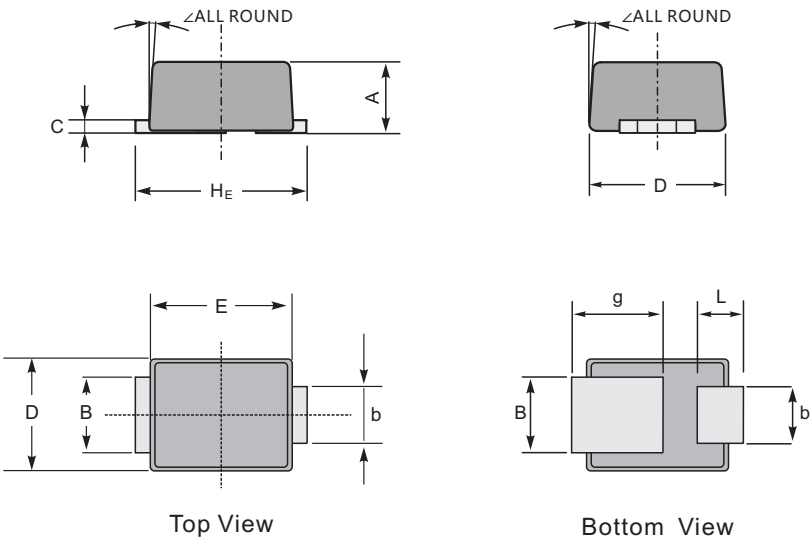


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PACKAGE OUTLINE

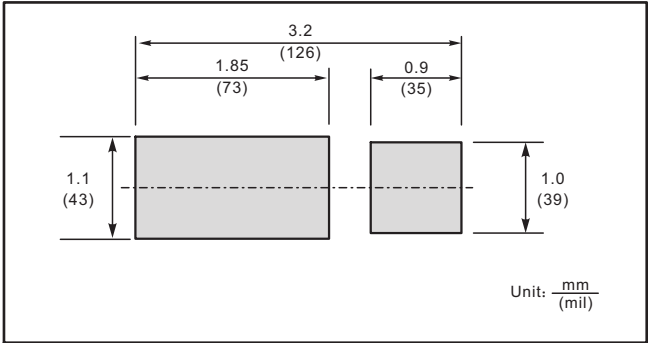
Plastic surface mounted package; 2 leads

SOD-323HE



UNIT		A	b	B	C	D	E	H _E	g	L	∠
mm	max	0.77	0.75	0.95	0.20	1.45	2.3	2.7	1.55	0.8	12°
	min	0.57	0.45	0.65	0.10	1.25	2.1	2.3	1.1	0.4	
mil	max	30	30	37	8	57	91	106	61	31	
	min	22	18	26	4	49	83	91	43	16	

The recommended mounting pad size



Marking

Type number	Marking code
1N4148WSE	T4