



1N4148WS

Fast Switching Diodes

Features

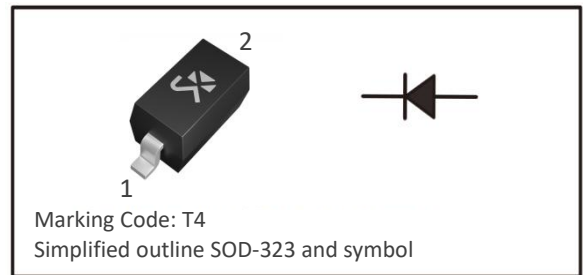
- For surface mounted applications
- Glass passivated chip junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EUroHS 2011/65/EU directives

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



Absolute Maximum Ratings@T_a = 25°C unless otherwise specified

Parameter		Symbol	1N4148WS	Unit
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	I _{FSM}	0.5	A
	at 1ms		1	A
	at 1us		4	A
Total Power Dissipation		P _{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾		R _{θJA}	340	°C/W
		R _{θJC}	120	°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55~+150	°C

(1) P.C.B. mounted with 5*5mm copper pad areas

Electrical Characteristics@T_a = 25 °C, unless specified otherwise

Parameter	Symbol	Test Condition	1N4148WS	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =1μA	100	V
Maximum Forward Voltage	V _F	I _F =1mA	0.715	V
		I _F =10mA	0.855	V
		I _F =50mA	1.00	V
		I _F =150mA	1.25	V
Peak Reverse Current	I _R	V _R =20V, T _J =25°C	0.025	μA
		V _R =75V, T _J =25°C	1	μA
		V _R =25V, T _J =150°C	30	μA
		V _R =75V, T _J =150°C	50	μA
Typical Junction Capacitance	C _J	V _R =0V, f=1MHz	2	pF
Maximum Revers Recovery Time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1*I _R , R _L =100Ω	4	ns



Typical Characteristics

Fig.1 Power Derating Curve

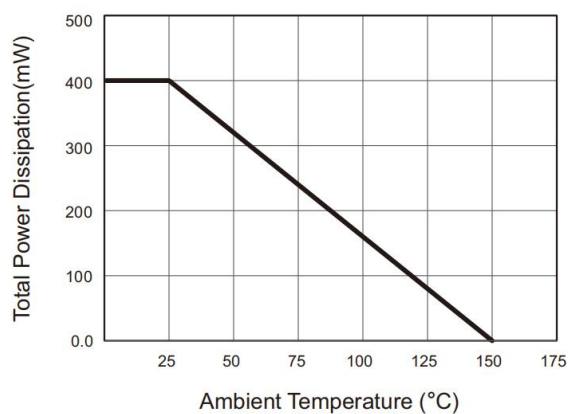


Fig.2 Typical Reverse Characteristics

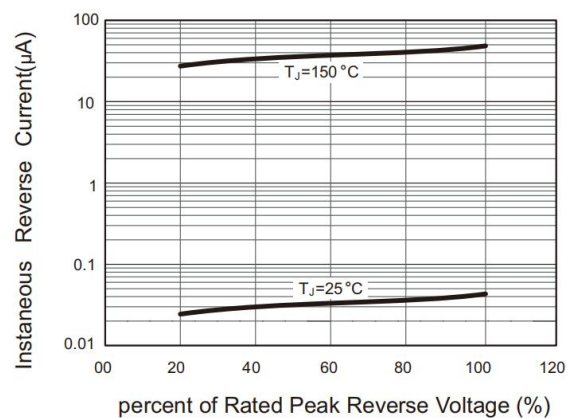


Fig.3 Typical Instantaneous Forward Characteristics

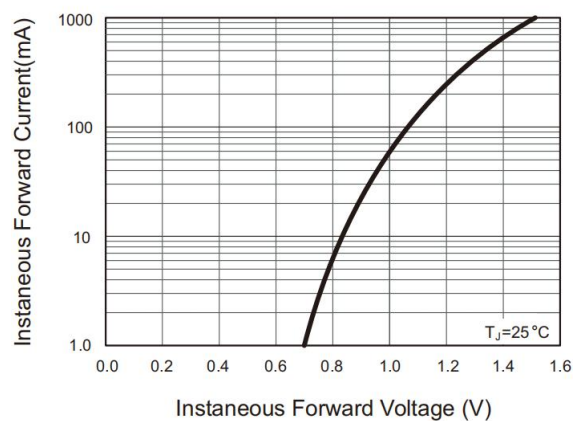
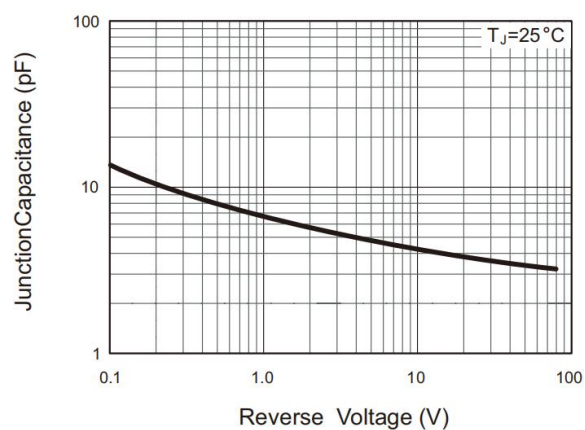


Fig.4 Typical Junction Capacitance



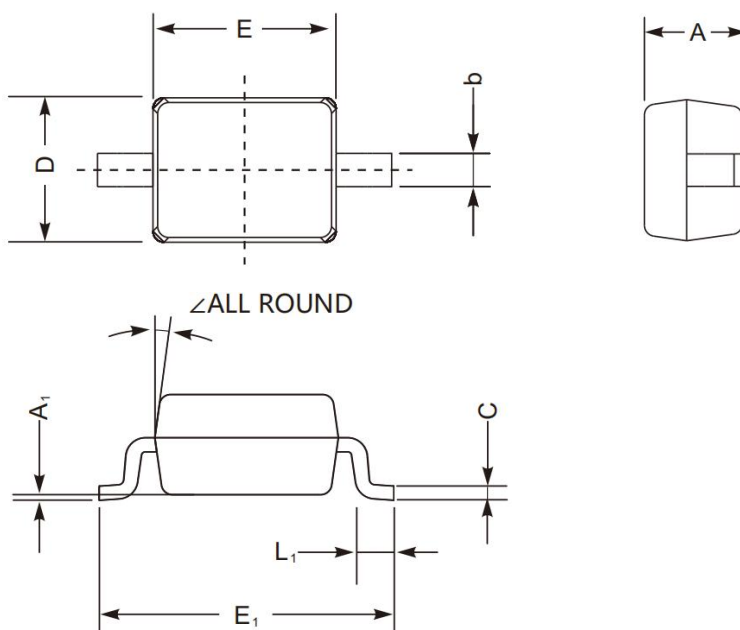


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Package Information

SOD-323

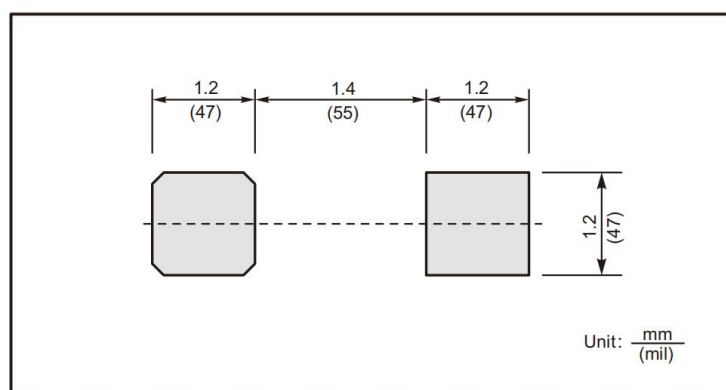
Dimensions in mm



SOD-323 mechanical data

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





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