

# 1N4148WS T4

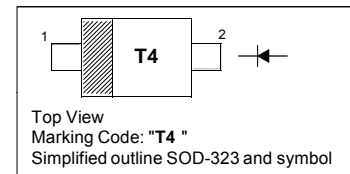
## Silicon Epitaxial Planar Switching Diode

### Features

- SOD-323 package
- Fast switching

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MARKING:T4

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Surge Forward Current ( $t < 1\text{ s}$ , $T_J = 25\text{ }^\circ\text{C}$ )	$I_{FSM}$	350	mA
Power Dissipation	$P_{tot}$	200	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	- - - -	0.715 0.855 1 1.25	V
Peak Reverse Current at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ , $T_J = 150\text{ }^\circ\text{C}$ at $V_R = 25\text{ V}$ , $T_J = 150\text{ }^\circ\text{C}$	$I_R$	- - - -	1 25 50 30	$\mu\text{A}$ nA $\mu\text{A}$ $\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R$ , $I_F = I_R = 10\text{ mA}$ , $R_L = 100\ \Omega$	$t_{rr}$	-	4	ns

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## Typical Characteristics

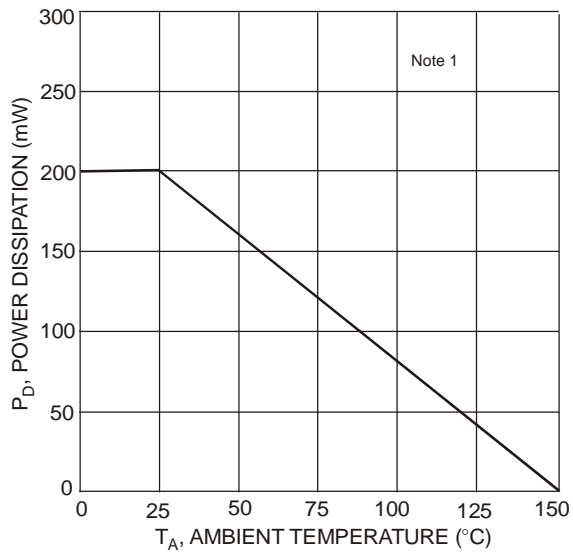


Fig. 1 Power Derating Curve

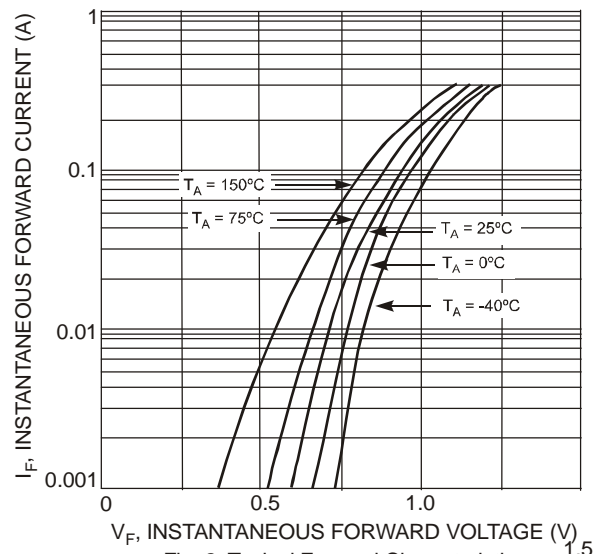


Fig. 2 Typical Forward Characteristics

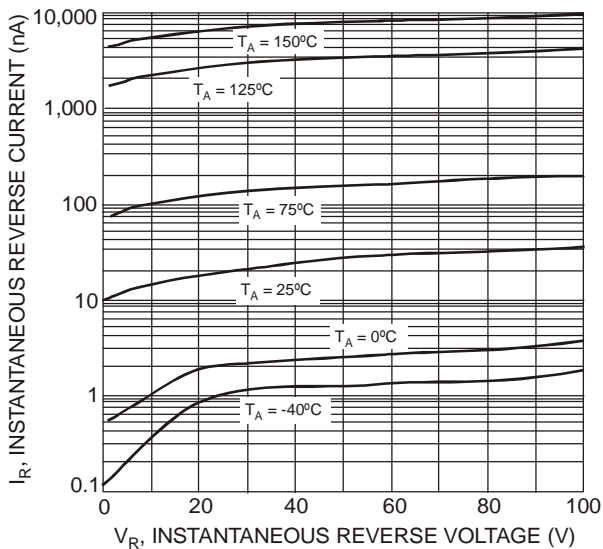


Fig. 3 Typical Reverse Characteristics

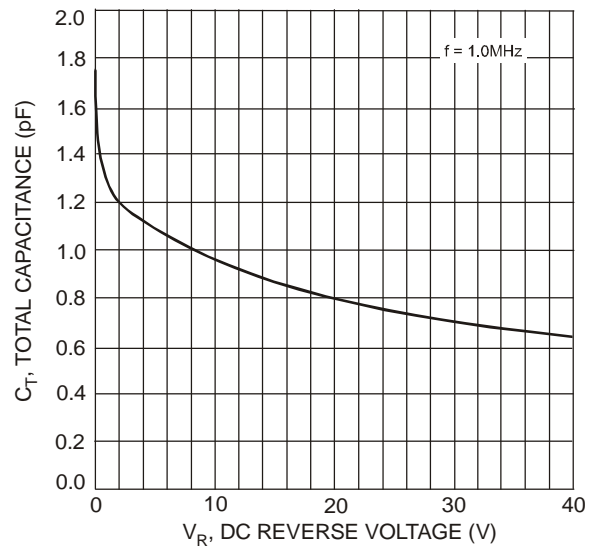


Fig. 4 Total Capacitance vs. Reverse Voltage

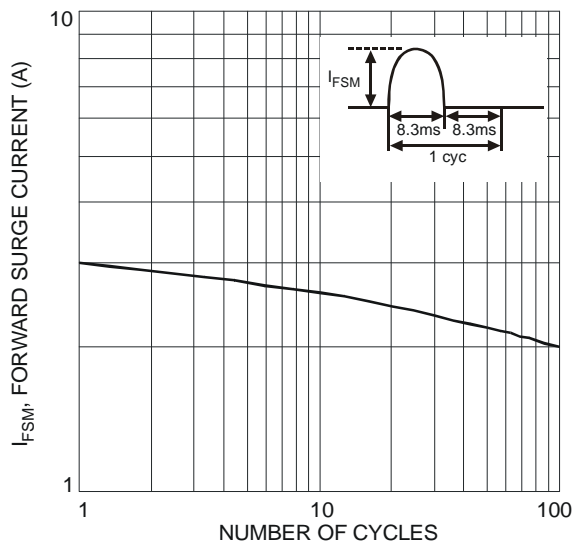


Fig. 5 Maximum Non-Repetitive Surge Current

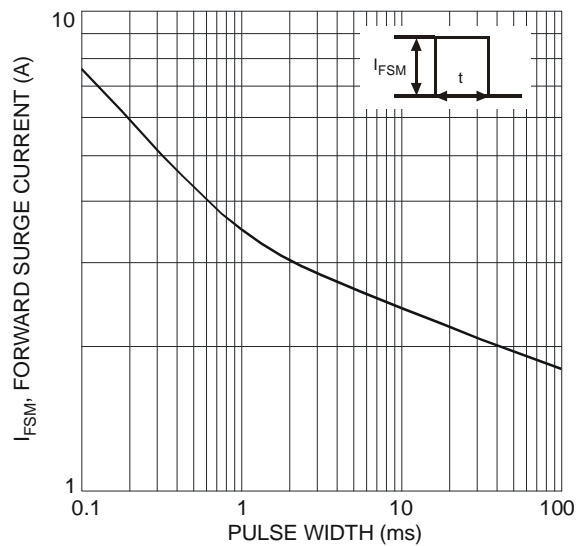


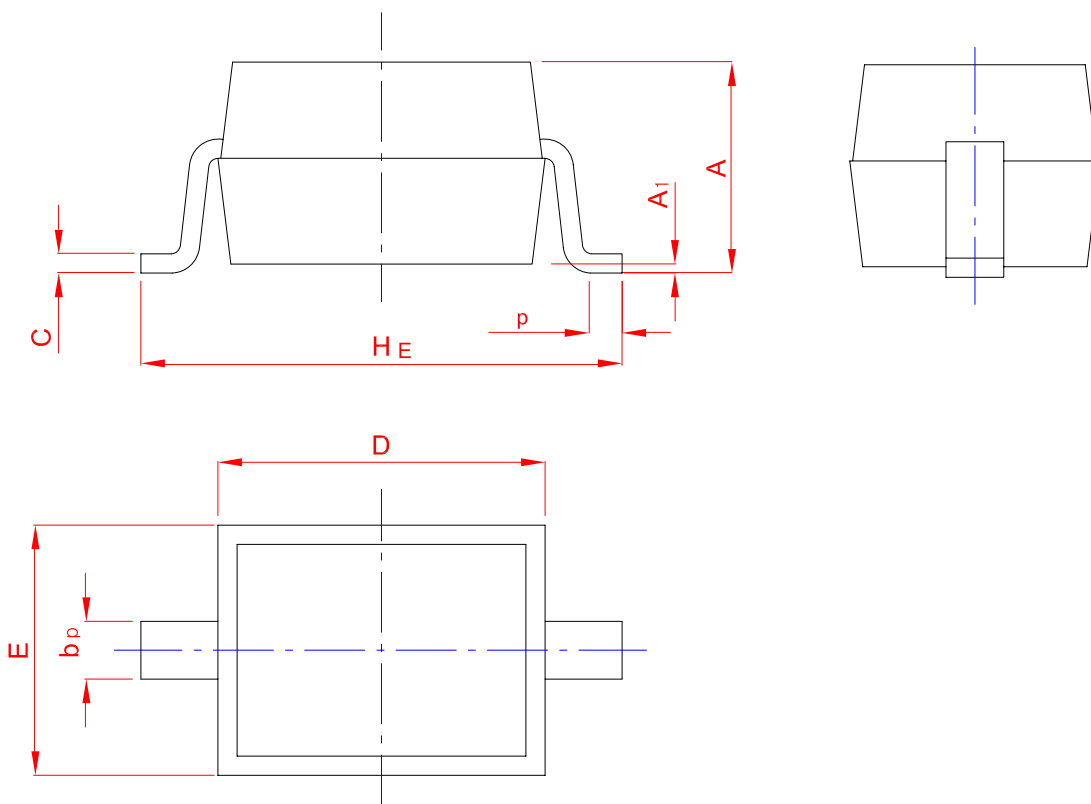
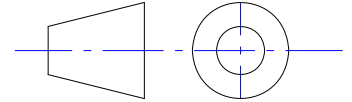
Fig. 6 Maximum Non-Repetitive Surge Current

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## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20