

1N4148WT

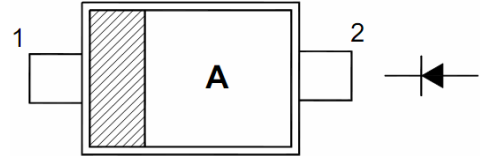
Silicon Epitaxial Planar Switching Diode

FEATURES

- ◆ Fast switching speed
- ◆ Ultra-small surface mount package
- ◆ For general purpose switching applications
- ◆ High conductance

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Marking Code: "A"

Simplified outline SOD-523 and symbol

Absolute Maximum Ratings (Ta = 25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_F (AV)$	125	mA
Forward Continuous Current	I_{FM}	250	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	2	A
		1	
Power Dissipation	P_{tot}	150	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	833	°C/W
Operating Temperature Range	T_j	- 65 to + 150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Electrical Characteristics (Ta = 25°C)

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Reverse Breakdown Voltage at $I_R = 1 \mu A$	$V_{(BR)R}$	75	-	V
Forward Voltage at $I_F = 1 \text{ mA}$	V_F	-	0.715	V
at $I_F = 10 \text{ mA}$		-	0.855	
at $I_F = 50 \text{ mA}$		-	1	
at $I_F = 150 \text{ mA}$		-	1.25	
Peak Reverse Current at $V_R = 75 \text{ V}$	I_R	-	1	μA
at $V_R = 20 \text{ V}$		-	25	nA
at $V_R = 75 \text{ V}, T_J = 150^\circ C$		-	50	μA
at $V_R = 25 \text{ V}, T_J = 150^\circ C$		-	30	μA
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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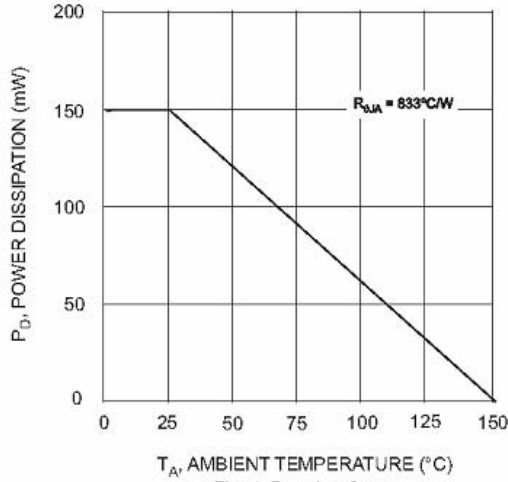


Fig. 1 Derating Curve

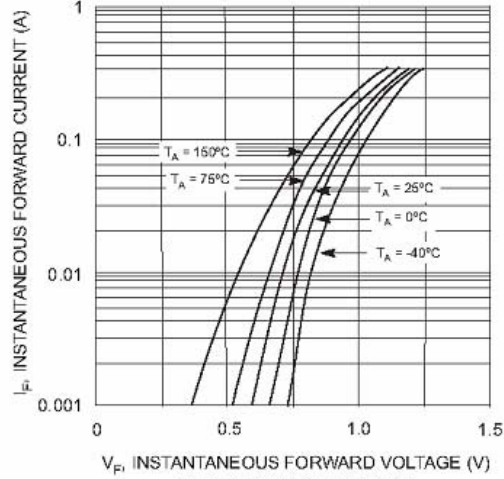


Fig. 2 Forward Characteristics

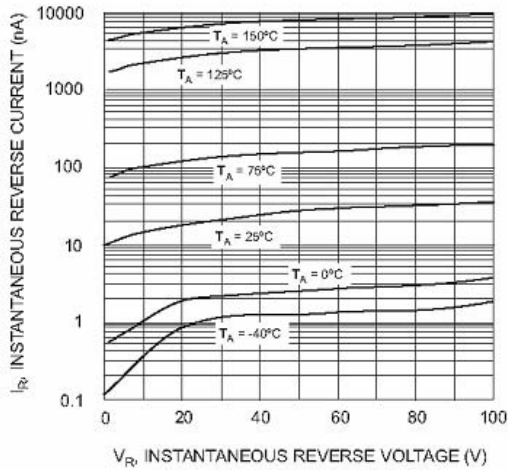


Fig. 3 Typical Reverse Characteristics

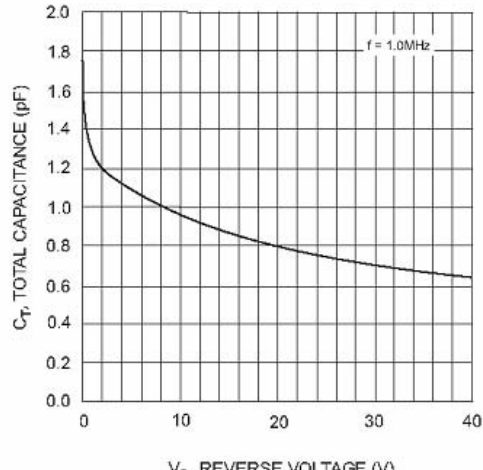


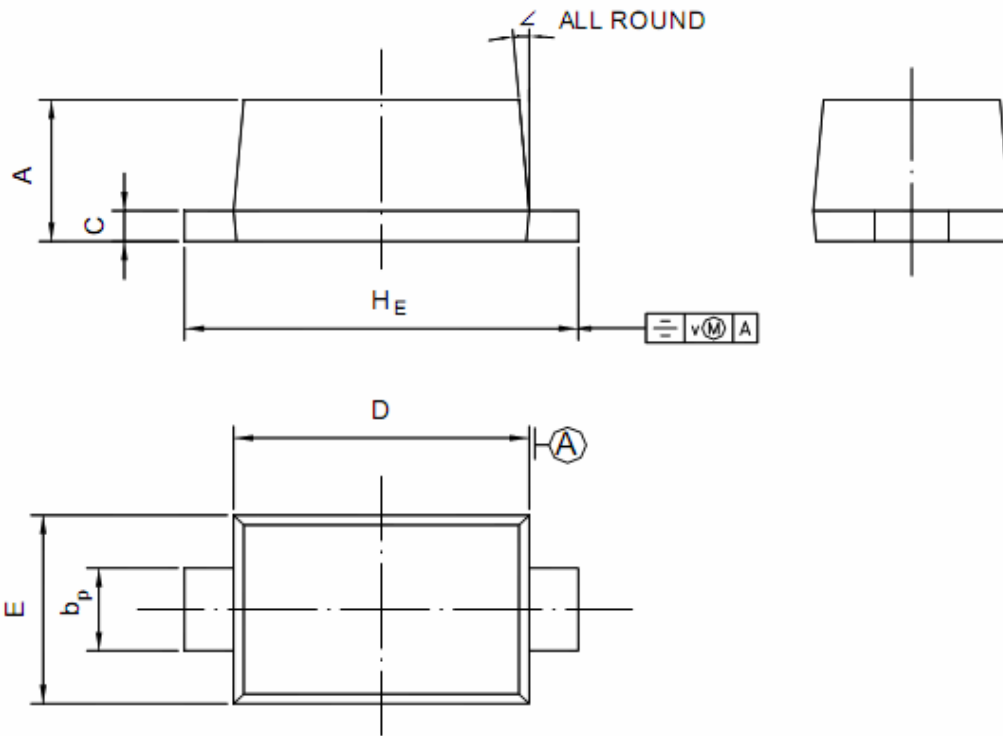
Fig. 4 Typical Capacitance vs. Reverse Voltage

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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Note: Specifications are subject to change without notice.