

Kingtronics®

1N4148WT

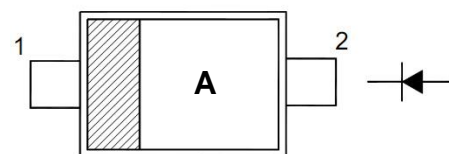
Silicon Epitaxial Planar Switching Diode

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 1	A
			at t = 1 μ s at t = 100 ms
Power Dissipation	I_{FSM}	2	A
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	833	$^{\circ}C/W$
Operating Temperature Range	T_j	-65 to +150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-65 to +150	$^{\circ}C$

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

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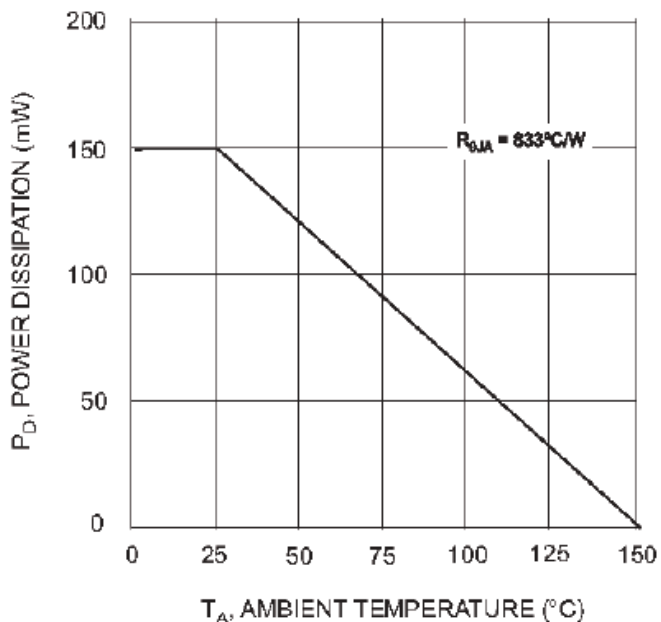


Fig. 1 Derating Curve

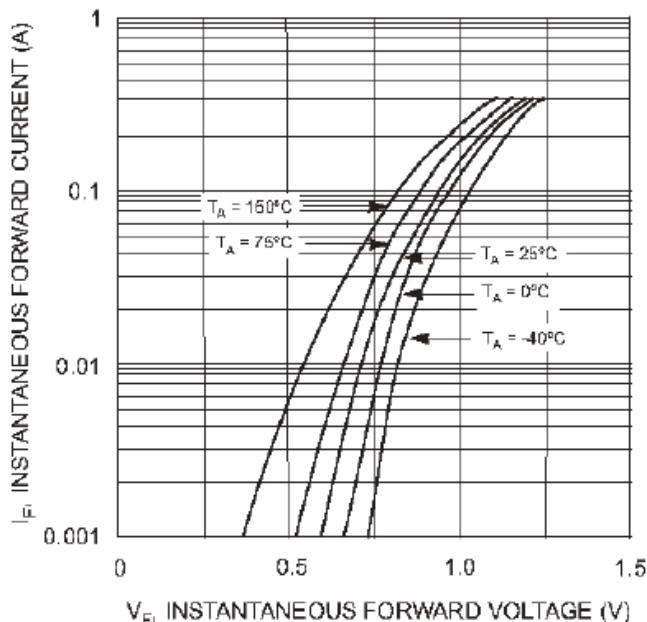


Fig. 2 Forward Characteristics

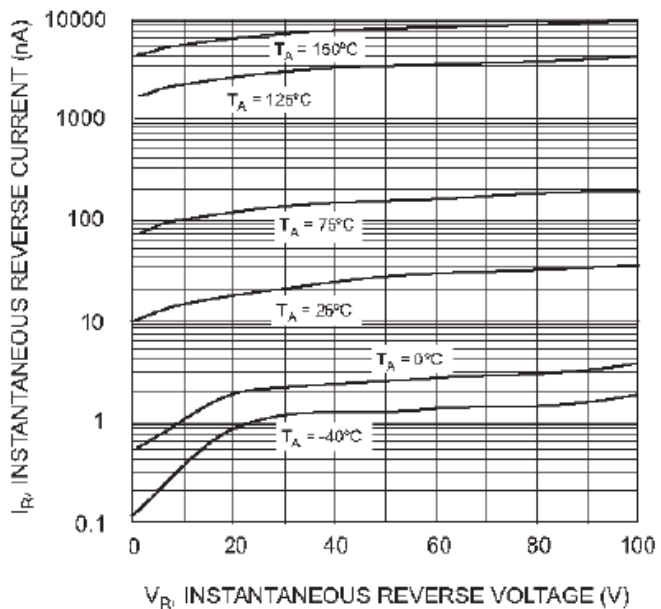


Fig. 3 Typical Reverse Characteristics

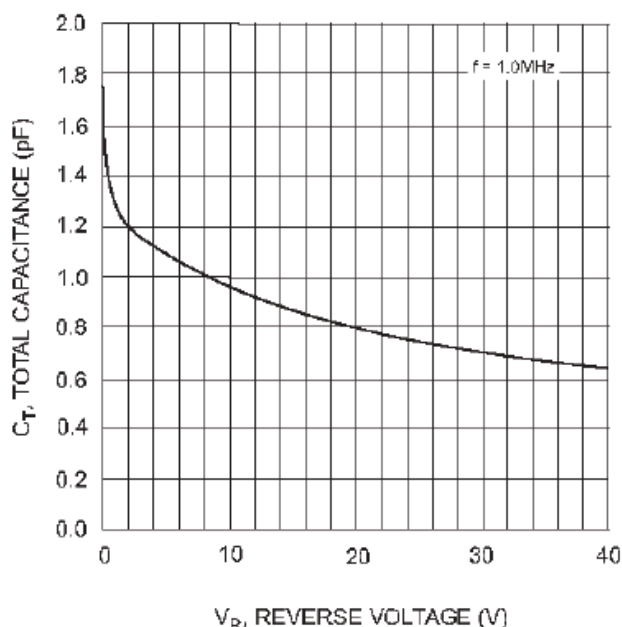


Fig. 4 Typical Capacitance vs. Reverse Voltage

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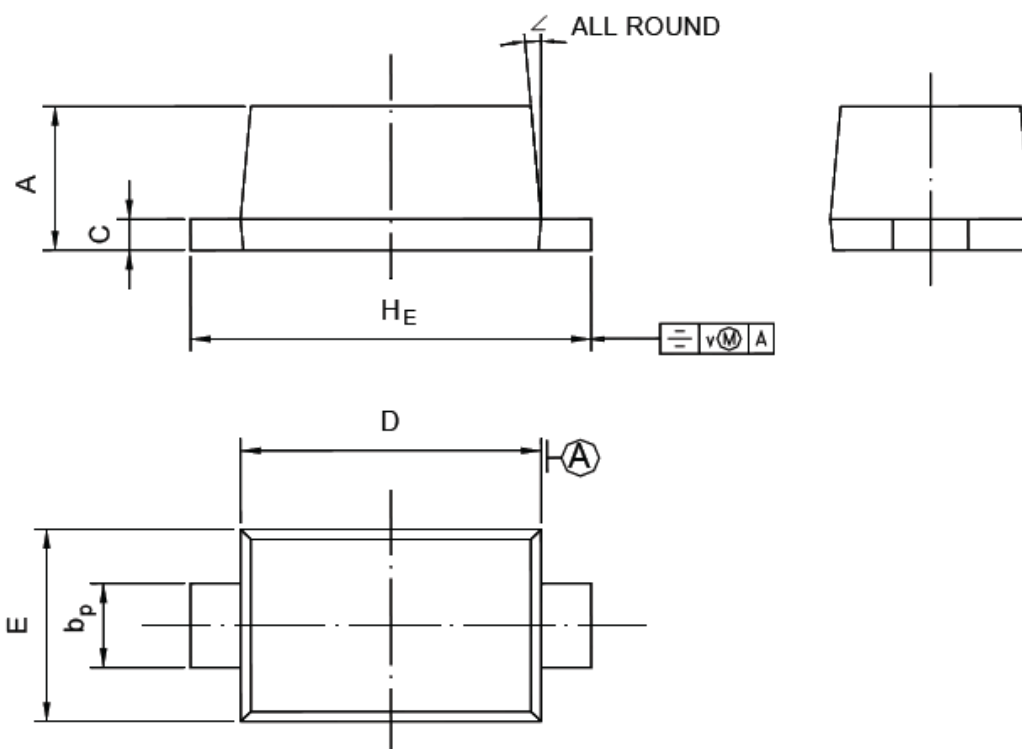
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SOD-523 PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



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.

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