



FUKUCOM COMPANY LTD.

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FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

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1N4148WT

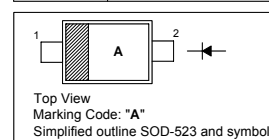
Silicon Epitaxial Planar Switching Diode

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

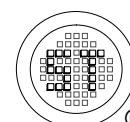


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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}	at $t = 1\ \mu\text{s}$ at $t = 100\ \text{ms}$	2 1	A
Power Dissipation		P_{tot}	150	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	833	$^\circ\text{C/W}$	
Operating Temperature Range	T_j	- 65 to + 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
Reverse Breakdown Voltage at $I_R = 1\ \mu\text{A}$	$V_{(BR)R}$	75	-	V
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	μA nA μA μA
Total Capacitance at $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_{rr} = 0.1\ I_R$, $I_F = I_R = 10\ \text{mA}$, $R_L = 100\ \Omega$	t_{rr}	-	4	ns



Dated : 15/06/2009



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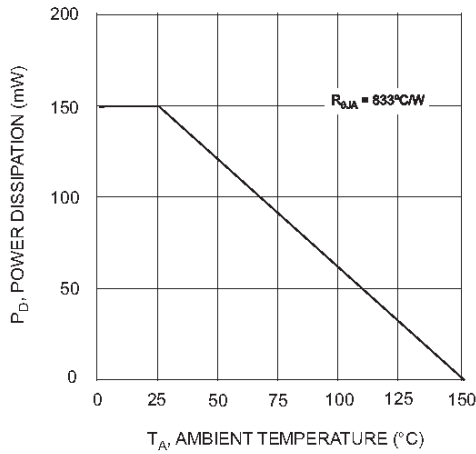


Fig. 1 Derating Curve

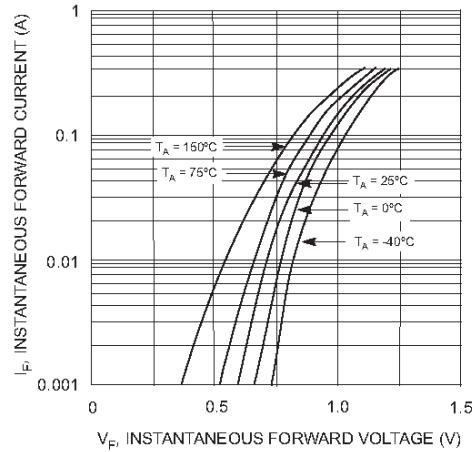


Fig. 2 Forward Characteristics

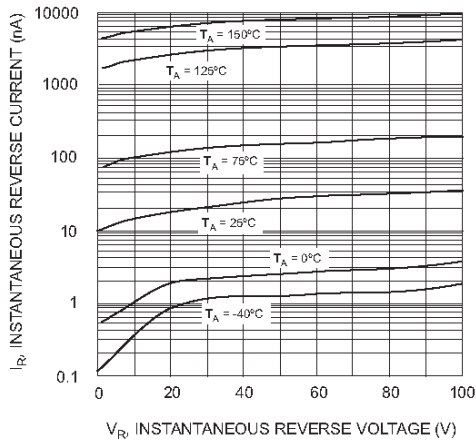


Fig. 3 Typical Reverse Characteristics

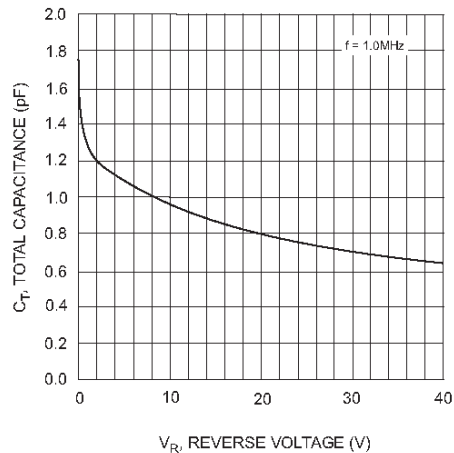
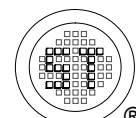


Fig. 4 Typical Capacitance vs. Reverse Voltage



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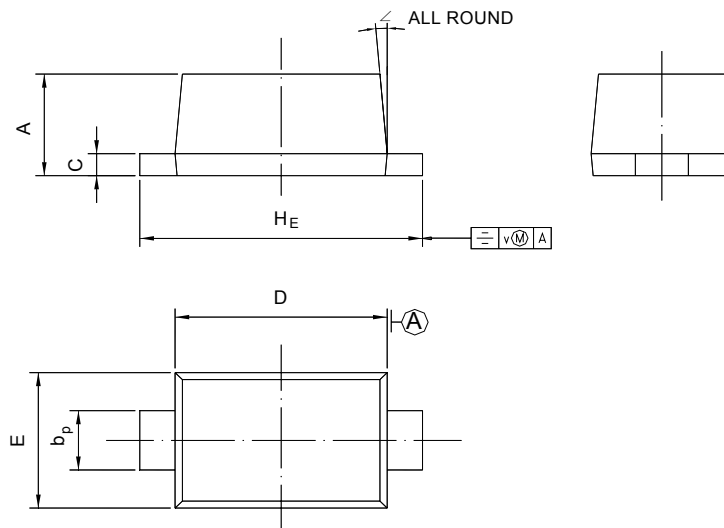
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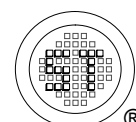
PACKAGE OUTLINE

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°



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