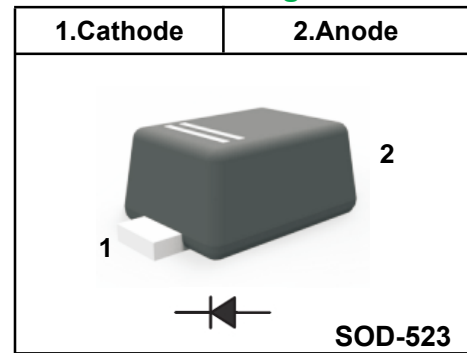


Silicon Epitaxial Planar Switching Diode

Features

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

Pinning



Marking Code

1N4148WT	T4
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Absolute Maximum Ratings (Ta = 25 °C)

Parameter	Symbols	1N4148WT	Units
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 at t = 1 μ s at t = 100 ms	I_{FSM}	2 1	A
Power Dissipation	P_{tot}	150	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	833	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150	°C

Characteristics at Ta = 25 °C

Parameter	Symbols	1N4148WT	Units
Reverse Breakdown Voltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Forward Voltage	V_F	at $I_F = 1$ mA	0.715
		at $I_F = 10$ mA	0.855
		at $I_F = 50$ mA	1.00
		at $I_F = 150$ mA	1.25
Peak Reverse Current	I_R	at $V_R = 75$ V	1
		at $V_R = 20$ V	25
		at $V_R=75V T_j=150^\circ C$	50
		at $V_R=25V T_j=150^\circ C$	30
Total Capacitance at $V_R = 0$ V, $f = 1$ MHz	C_T	2	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R, I_F = I_R = 10$ mA, $R_L = 100 \Omega$	T_{rr}	4	nS

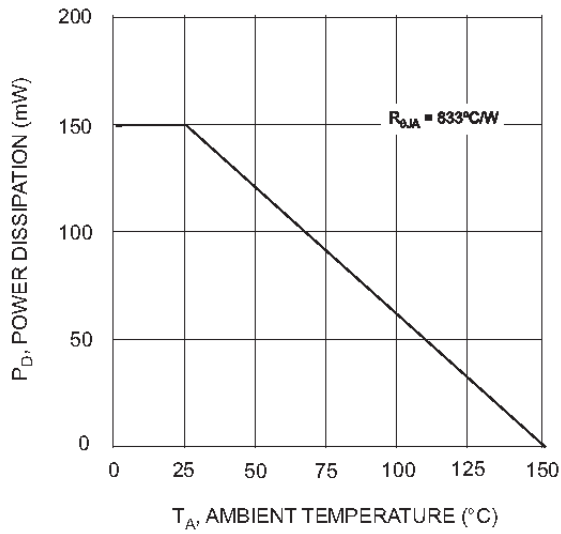


Fig. 1 Derating Curve

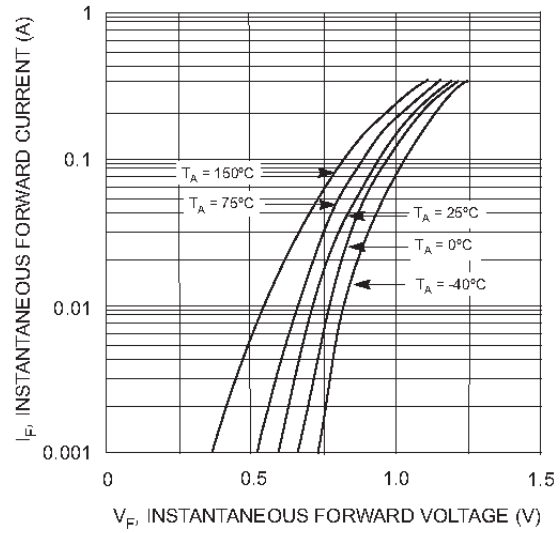


Fig. 2 Forward Characteristics

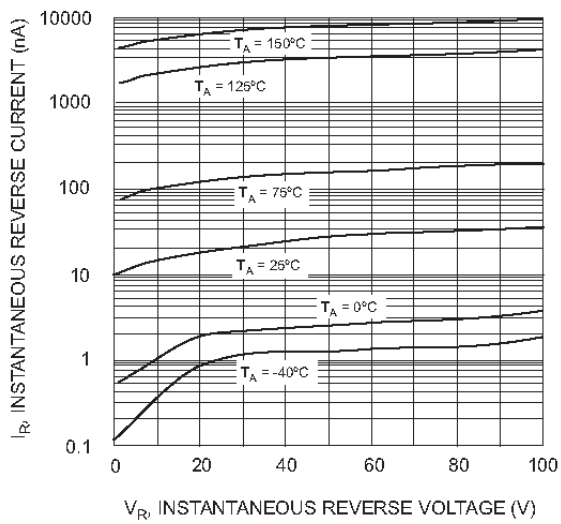


Fig. 3 Typical Reverse Characteristics

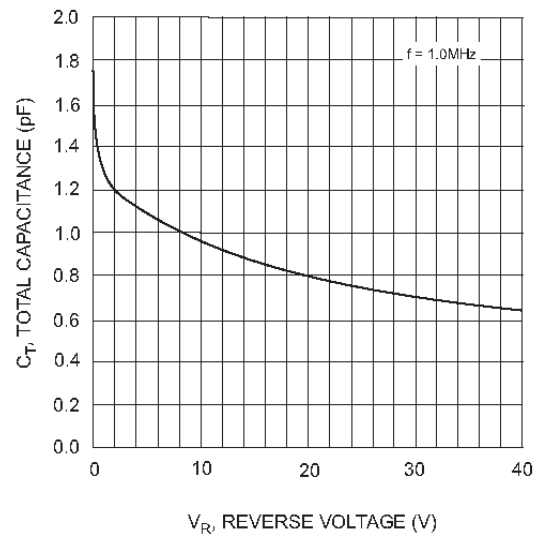


Fig. 4 Typical Capacitance vs. Reverse Voltage

Ordering information

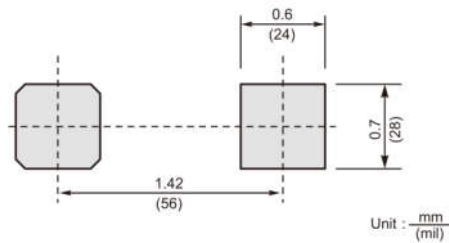
Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



Disclaimer

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