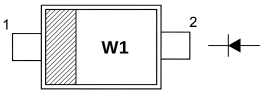
1N4151W

Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "**W1**"
Simplified outline SOD-123 and symbol

Features

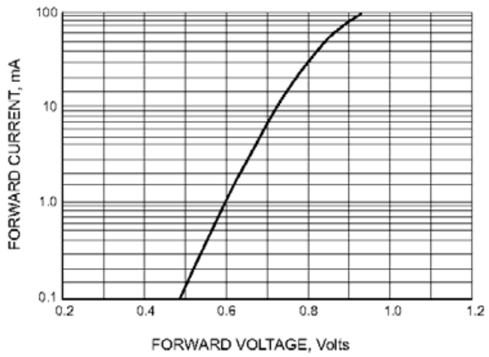
- SOD-123 package
- Fast switching

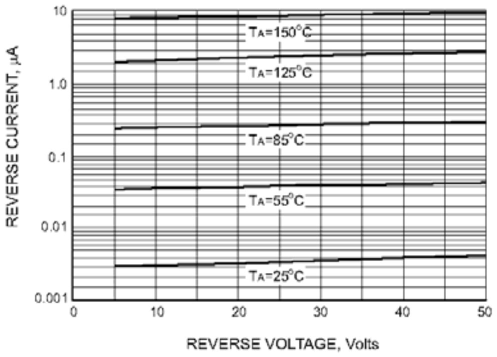
Absolute Maximum Ratings (T_a = 25 °C)

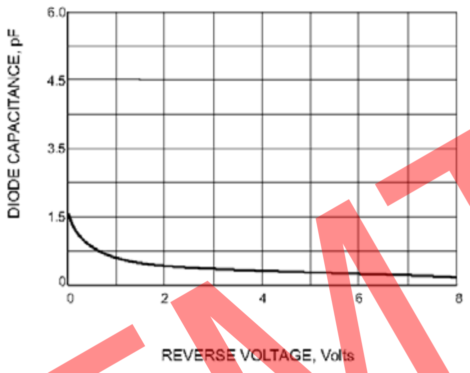
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	75	V
Reverse Voltage	V_R	50	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current (at t < 1 s)	I_{FSM}	500	mA
Power Dissipation	P_{tot}	410	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	305	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Electrical Characteristics (T_a = 25 °C)

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 50 mA	V_F	-	1	V
Reverse Breakdown Voltage at I_R = 5 µA	$V_{(BR)R}$	75	-	V
Reverse Current at V_R = 50 V at V_R = 20 V, T_J = 150 °C	I_R	- -	50 50	nA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	2	pF
Reverse Recovery Time at I_F = 10 mA through I_R = 10 mA to I_R = 1 mA at I_F = 10 mA to I_R = 1 mA, V_R = 6 V, R_L = 100 Ω	t_{rr}	- -	4 2	ns

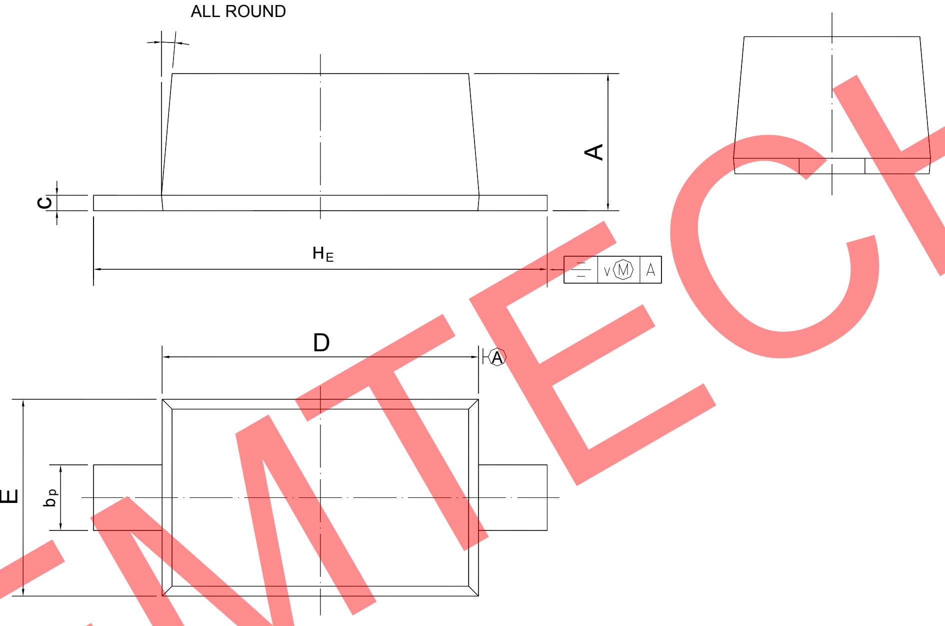

FORWARD CURRENT, mA
100
10
1.0
0.1
0.2
0.4
0.6
0.8
1.0
1.2
FORWARD VOLTAGE, Volts


REVERSE CURRENT, μA
10
1.0
0.1
0.01
0.001
TA=150°C
TA=125°C
TA=85°C
TA=55°C
TA=25°C
0
10
20
30
40
50
REVERSE VOLTAGE, Volts


DIODE CAPACITANCE, pF
6.0
4.5
3.5
1.5
0
0
2
4
6
8
REVERSE VOLTAGE, Volts

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	c	D	E	H_E	v	
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°