1N4148WGH

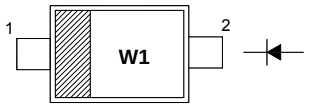
Silicon Epitaxial Planar Switching Diode

Lead free product

Halogen-free type

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}	100	V
Reverse Voltage	V_R	75	V
Maximum DC Blocking Voltage	V_{DC}	75	V
Average Rectified Current Half Wave Rectification with Resistive Load f ≥ 50 Hz	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at t = 1 μs	I_{FSM}	4	A
Power Dissipation	P_{tot}	410	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	°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 = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	 V
Reverse Current at V_R = 20 V at V_R = 75 V at V_R = 20 V, T_J = 150 °C	I_R	 - - -	 25 5 50	 nA μA μA
Capacitance at V_F = V_R = 0 V	C_{tot}	-	4	pF
Reverse Recovery Time from I_F = 10 mA to I_R = 1 mA, V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

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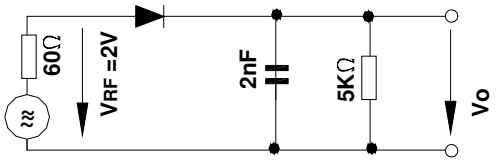
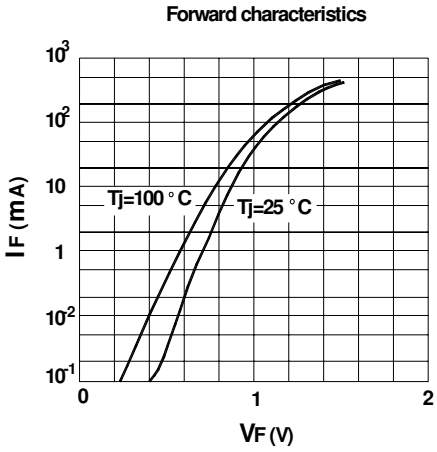
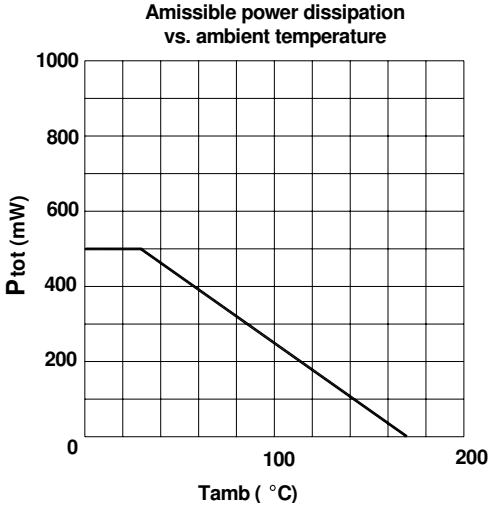
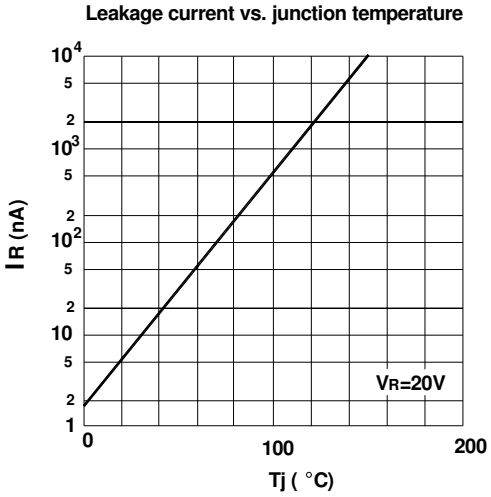
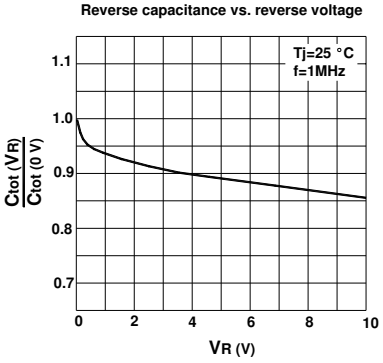


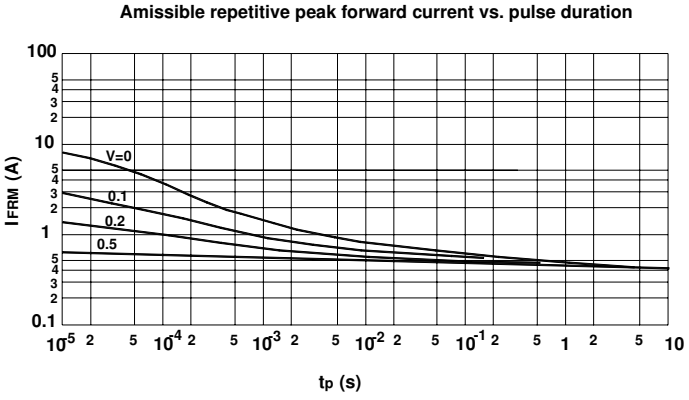
Rectification Efficiency Measurement Circuit











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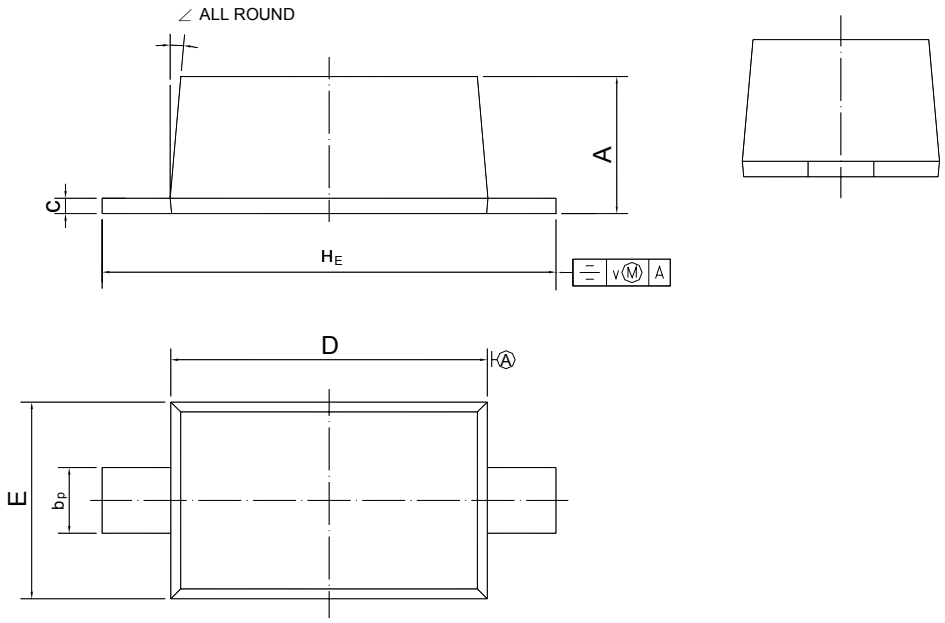
PACKAGE OUTLINE

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°