1N4148W

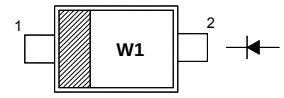
Silicon Epitaxial Planar Switching Diode

Features

- SOD-123 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



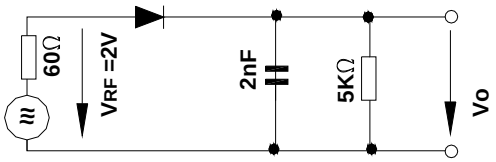
Top View
Marking Code: "**W1**"
Simplified outline SOD-123 and symbol

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ms at t = 1 µs	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

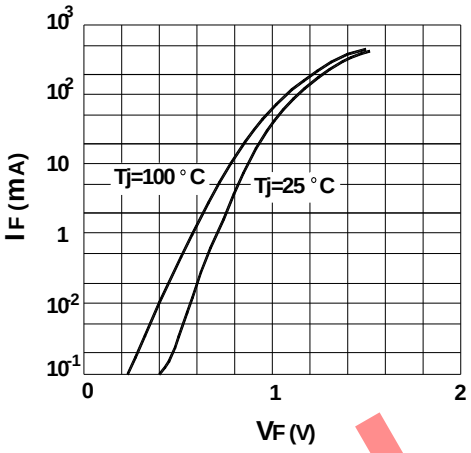
Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 1 µA	$V_{(BR)R}$	75	-	V
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
Peak Reverse Current at V_R = 75 V at V_R = 20 V at V_R = 75 V, T_J = 150℃ at V_R = 25 V, T_J = 150℃	I_R	 - - - -	 1 25 50 30	 µA nA µA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_{rr} = 0.1 X I_R, I_F = I_R = 10 mA, R_L = 100 Ω	t_{rr}	-	4	ns

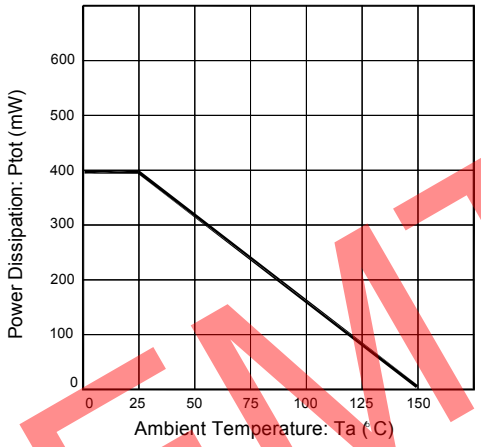


Rectification Efficiency Measurement Circuit

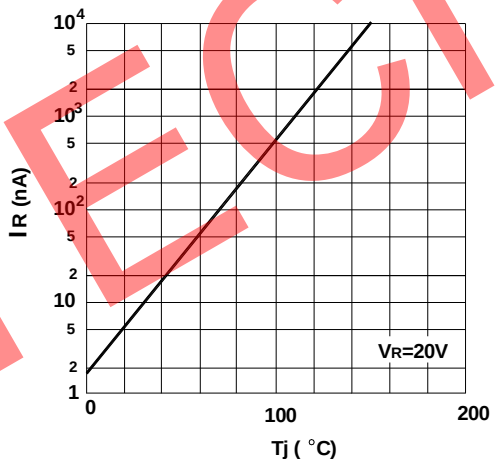
Forward characteristics



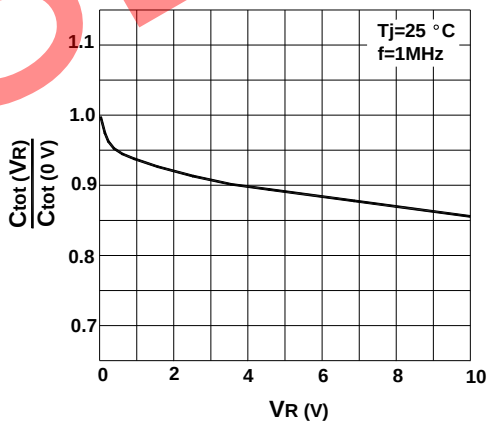
Power Dissipation vs Ambient Temperature



Leakage current vs. junction temperature

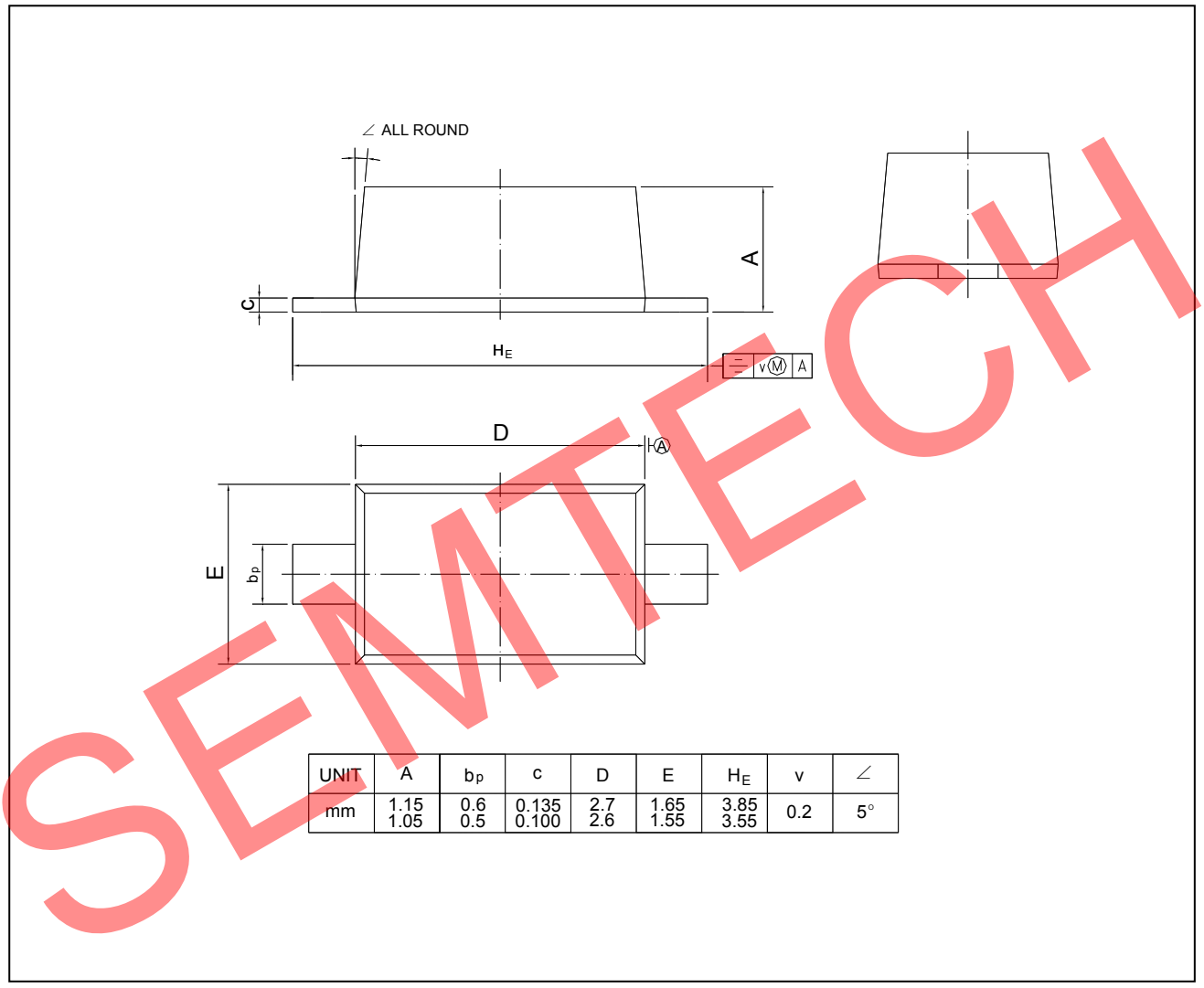


Reverse capacitance vs. reverse voltage



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°