

**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

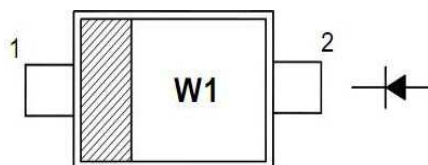
designation 1N4148, the Mini MELF case with the

type designation LL4148 and the Micro MELF case

with the type designation MCL4148.

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Marking Code: "W1"

Simplified outline SOD-123 and symbol

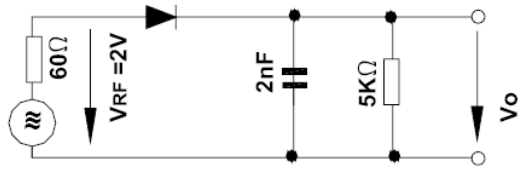
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS****Absolute Maximum Ratings (Ta = 25°C)**

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 $t = 1 \mu s$	$I_{FSM}$	2	A
Power Dissipation	$P_{tot}$	400	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 (Ta = 25°C)**

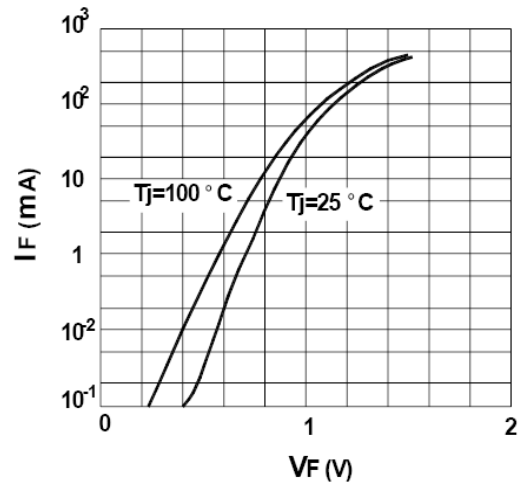
PARAMETER	SYMBOL	MAX.	UNIT
Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	1	V
Reverse Current	$I_R$	25	nA
at $V_R = 20 \text{ V}$		5	$\mu A$
at $V_R = 75 \text{ V}$		50	$\mu A$
at $V_R = 20 \text{ V}, T_J = 150^\circ C$			
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_{tot}$	4	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$ to $I_R = 1 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \Omega$	$t_{rr}$	4	ns

RATINGS AND CHARACTERISTIC CURVES 1N4148W

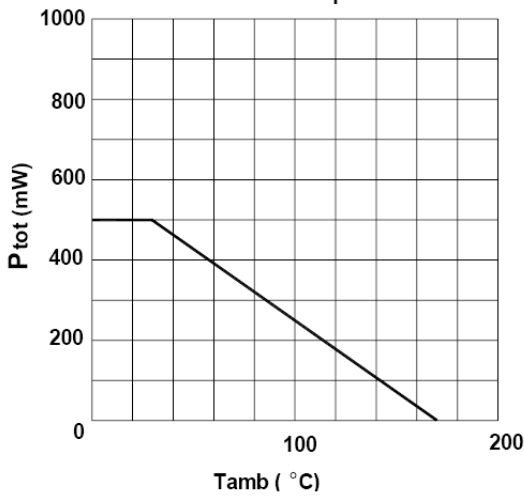


Rectification Efficiency Measurement Circuit

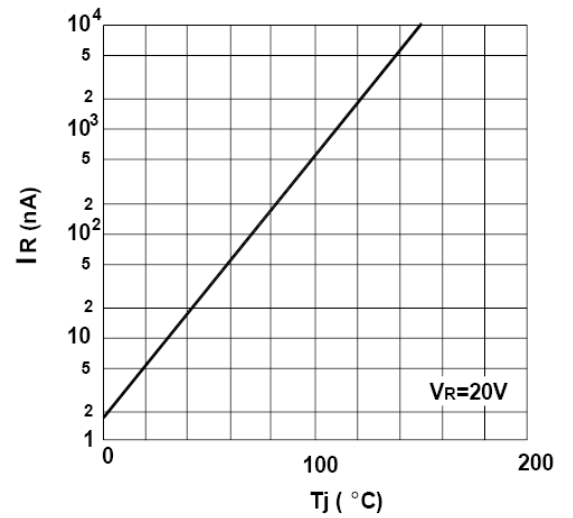
Forward characteristics



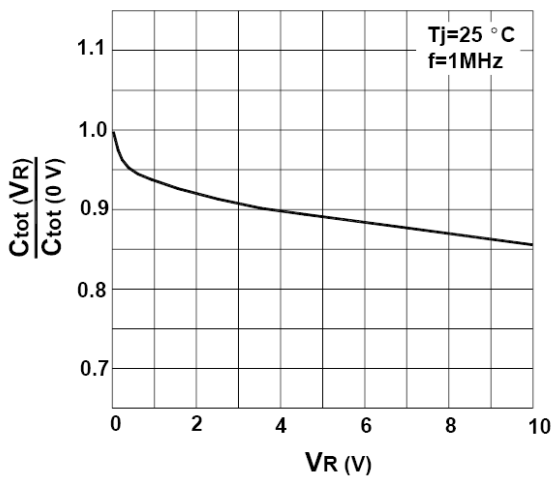
Ammissible power dissipation vs. ambient temperature



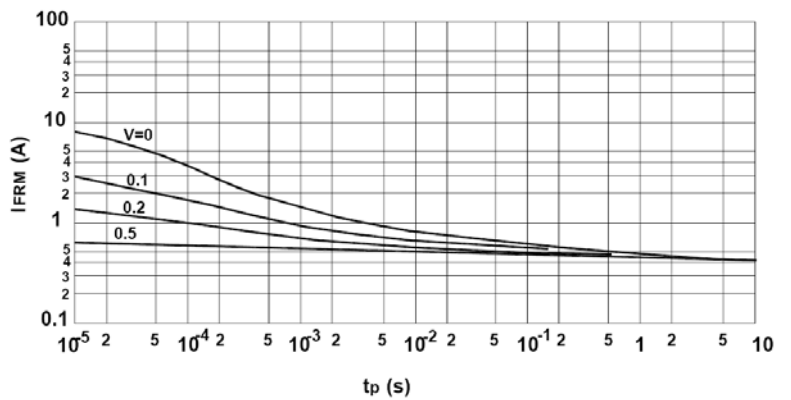
Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage



Ammissible repetitive peak forward current vs. pulse duration

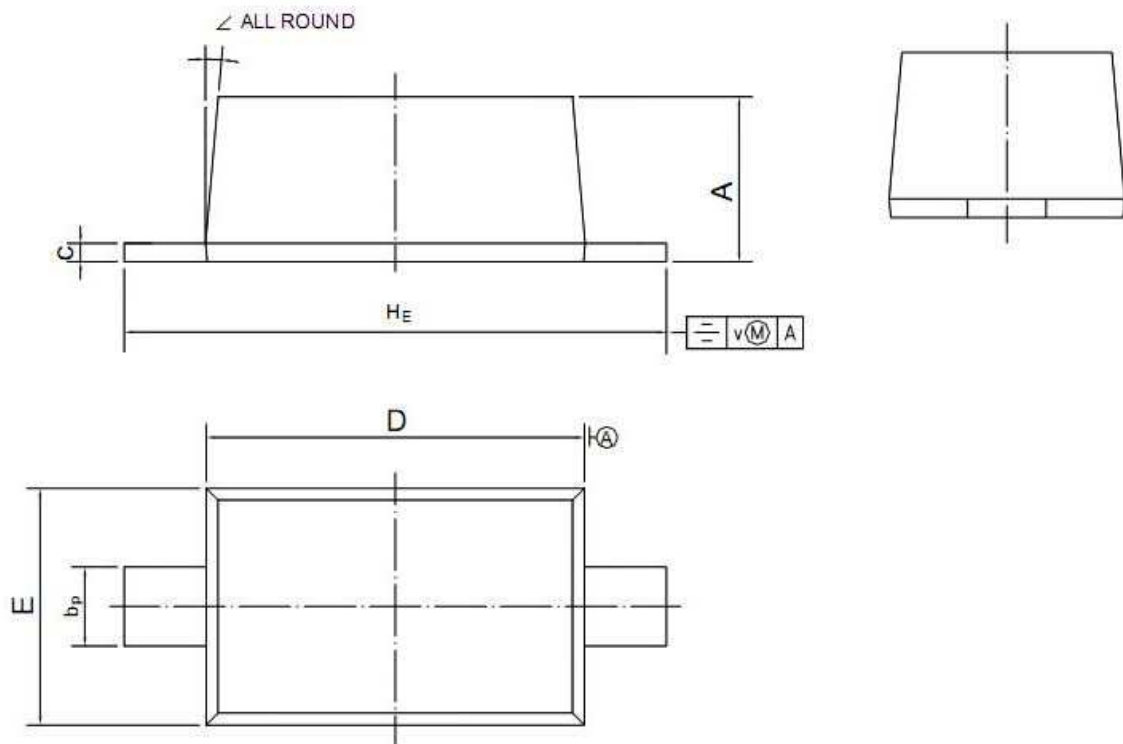


RATINGS AND CHARACTERISTIC CURVES 1N4148W

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	$b_p$	c	D	E	$H_E$	v	$\angle$
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	$5^\circ$