

1N4148W

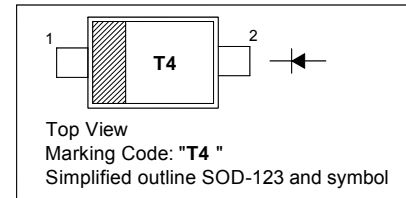
Silicon Epitaxial Planar Small Signal Diode

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

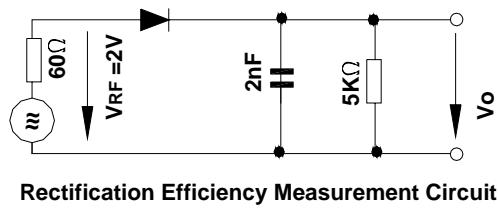


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

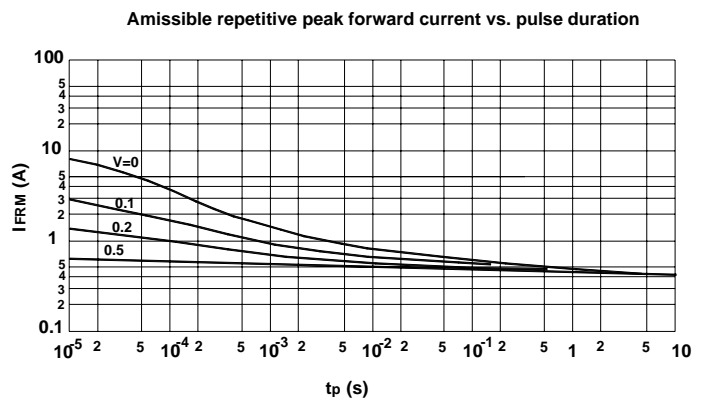
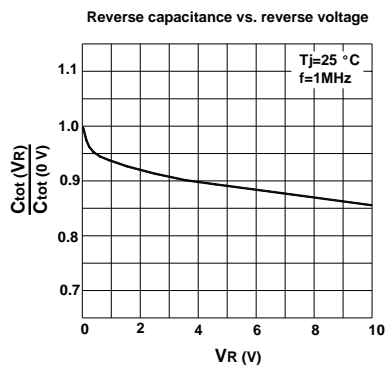
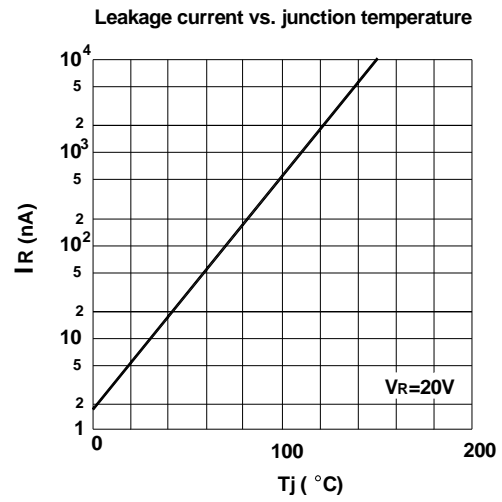
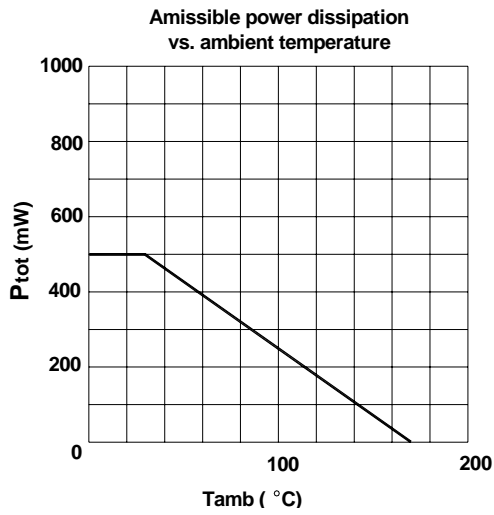
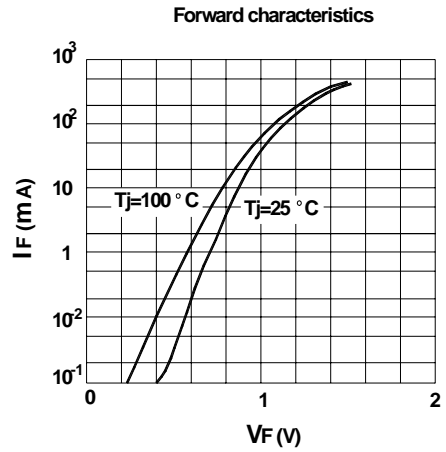
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Current Half Wave Rectification with Resistive Load $f \geq 50\text{ Hz}$	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at $t = 1\text{ }\mu\text{s}$	I_{FSM}	2	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	450	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	I_R	- - -	25 5 50	nA μA μA
Capacitance at $V_F = V_R = 0\text{ V}$	C_{tot}	-	4	pF
Reverse Recovery Time from $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns
Voltage Rise when Switching On (tested with 50 mA Pulses $t_p = 0.1\text{ }\mu\text{s}$, Rise Time < 30 ns, $f_p = 5\text{ to }100\text{ KHz}$)	V_{fr}	-	2.5	V
Rectification Efficiency at $f = 100\text{ MHz}$, $V_{RF} = 2\text{ V}$	η_v	0.45	-	-



Rectification Efficiency Measurement Circuit

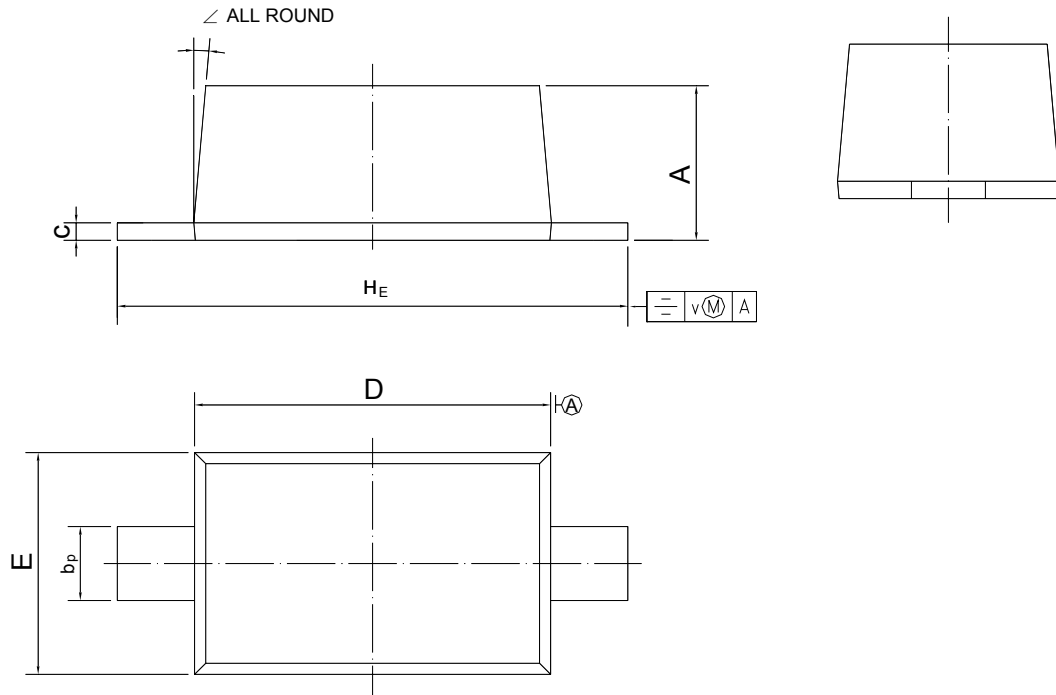


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b_p	c	D	E	H_E	v	\sphericalangle
mm	1.15 1.05	0.6 0.5	0.135 0.127	2.7 2.6	1.65 1.55	3.9 3.7	0.2	5°