

1N4148W

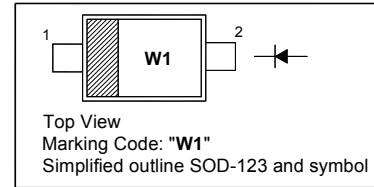
Silicon Epitaxial Planar Switching Diode

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

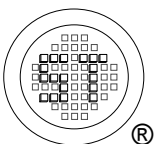


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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	I_{FSM}	0.5 1 4	A
		at $t = 1$ s	
		at $t = 1$ ms	
		at $t = 1$ μ s	
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \mu\text{A}$	$V_{(BR)R}$	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, $T_J = 150^\circ\text{C}$ at $V_R = 25$ V, $T_J = 150^\circ\text{C}$	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 $I_F = 10$ mA, $I_{tr} = 1$ mA, $V_R = 6$ V, $R_L = 100 \Omega$	t_{rr}	-	4	ns



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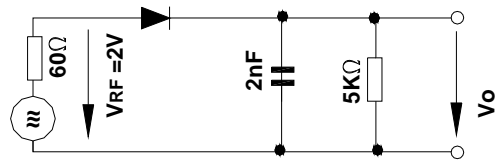
ISO/TS 18949 : 2008
Certificate No. 16073000

ISO14001 : 2004
Certificate No. 7116

ISO 9001 : 2008
Certificate No. 5070410

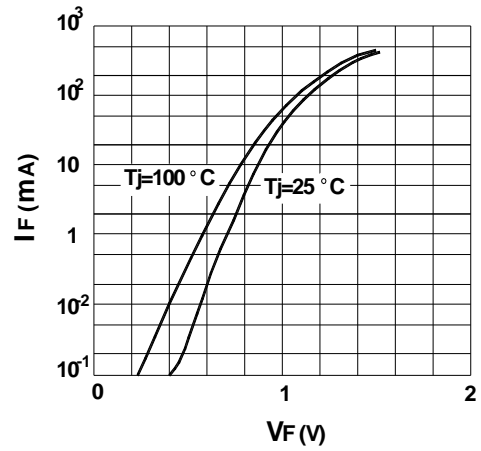
BS-OHSAS 18001 : 2007
Certificate No. 7116

IECQ QC 080000
Certificate No. PSC-82P4-148-1

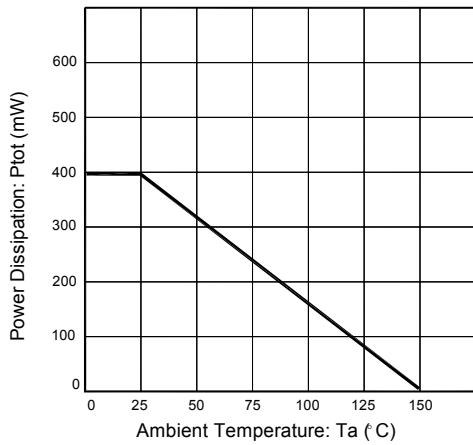


Rectification Efficiency Measurement Circuit

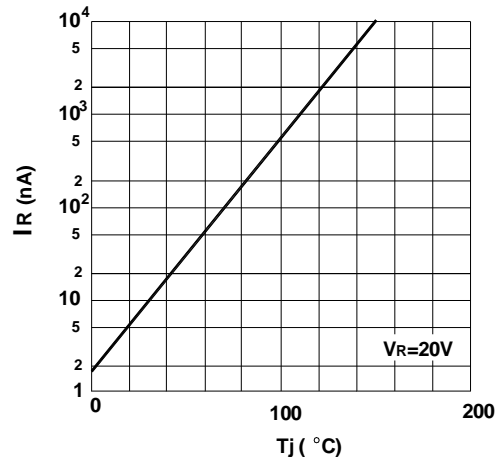
Forward characteristics



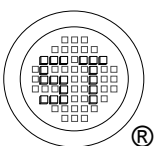
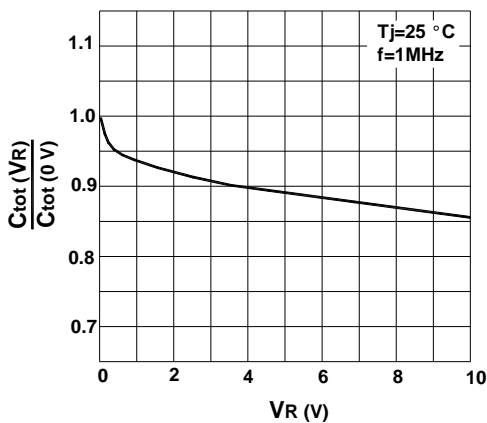
Power Dissipation vs Ambient Temperature



Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage



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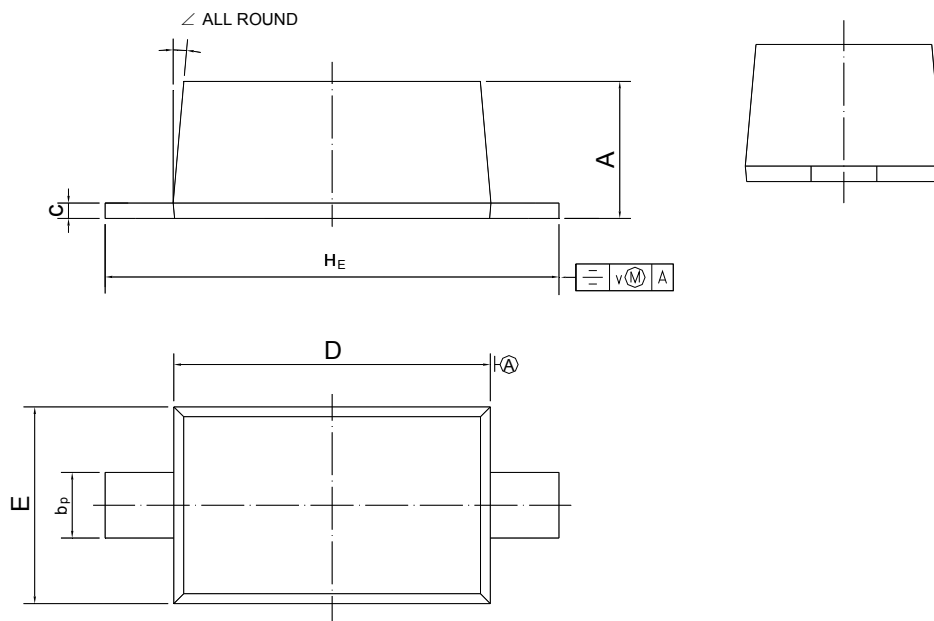
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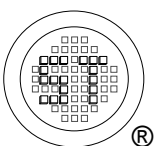
PACKAGE OUTLINE

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°



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Dated: 20/09/2016 Rev: 05