

1N4148WS

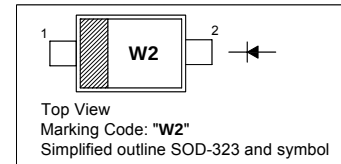
SILICON EPITAXIAL PLANAR SMALL SIGNAL DIODE

Features

- SOD-323 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

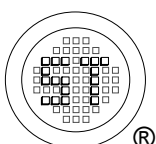


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Current Half Wave Rectification with Resistive Load $f \geq 50$ Hz	$I_{F(AV)}$	150	mA
Surge Forward Current ($t < 1$ s, $T_j = 25^\circ\text{C}$)	I_{FSM}	350	mA
Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

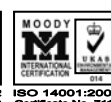
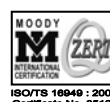
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

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



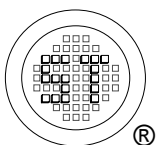
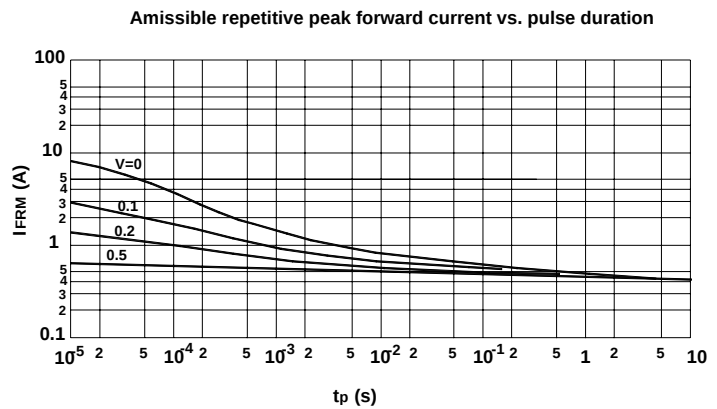
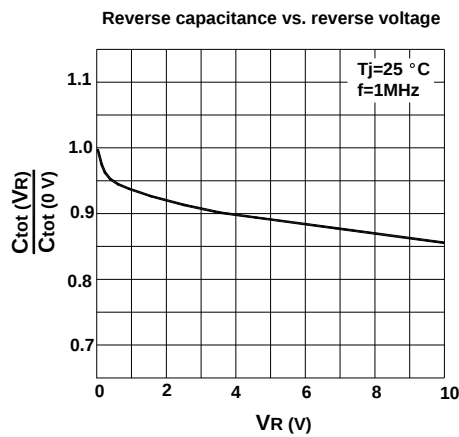
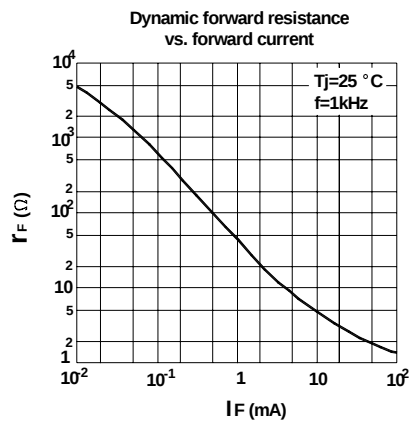
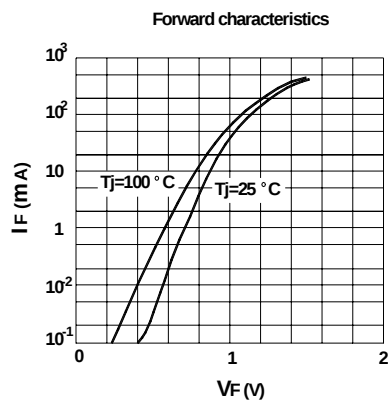
SEMTECH ELECTRONICS LTD.

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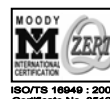


Dated : 07/04/2009

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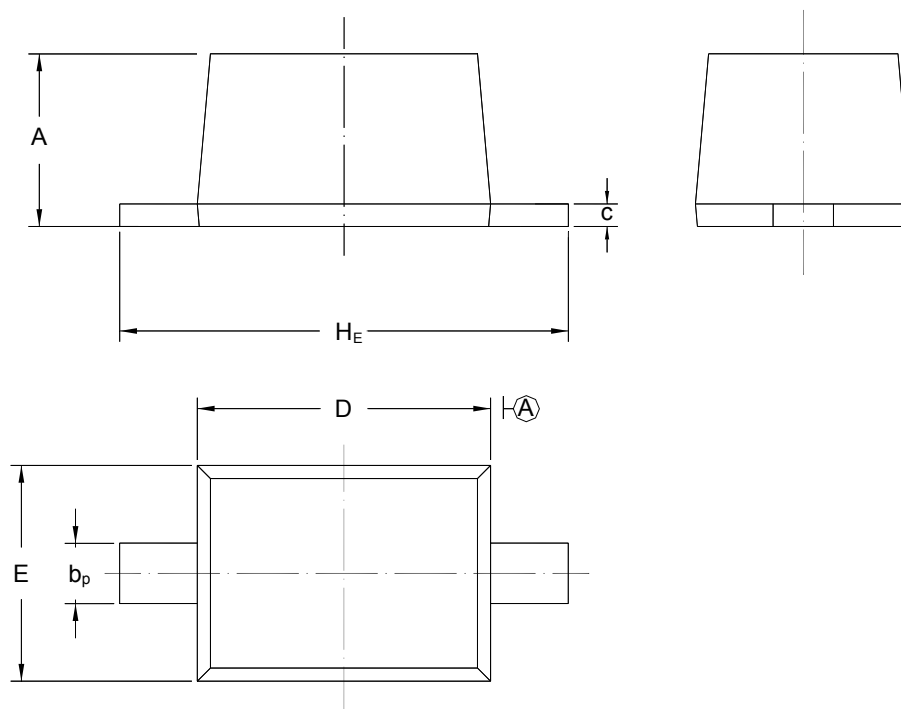


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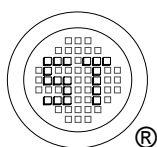
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

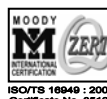
SOD-323



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30



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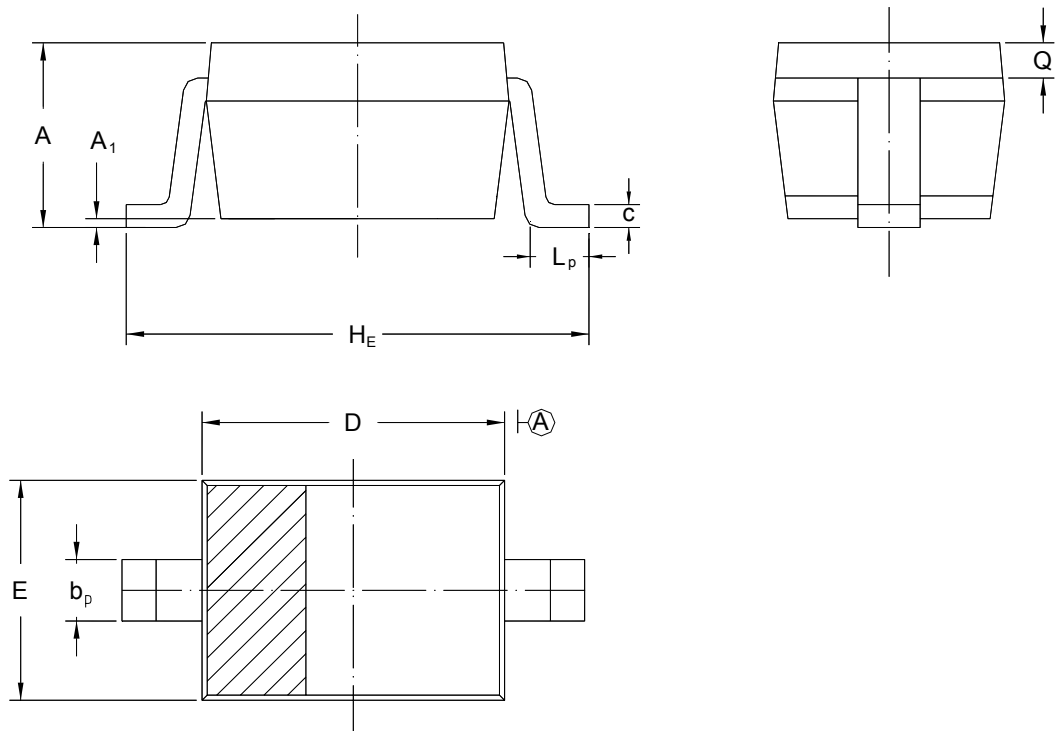


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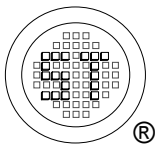
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	A ₁	b _p	C	D	E	H _E	L _p	Q
mm	1.10 0.80	0.1 0	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30	0.50 0.10	0.15 REF.



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