

# 1N4148WS

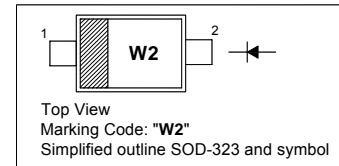
## SILICON EPITAXIAL PLANAR SMALL SIGNAL DIODE

### 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

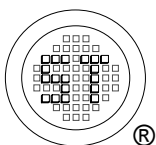


### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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	$^\circ\text{C}$

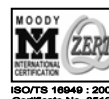
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10$ mA	$V_F$	-	1	V
Reverse Current at $V_R = 20$ V	$I_R$	-	25	nA
at $V_R = 75$ V		-	5	$\mu\text{A}$
at $V_R = 20$ V, $T_j = 150^\circ\text{C}$		-	50	$\mu\text{A}$
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	$\eta_v$	0.45	-	-



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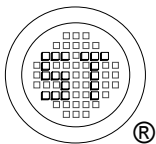
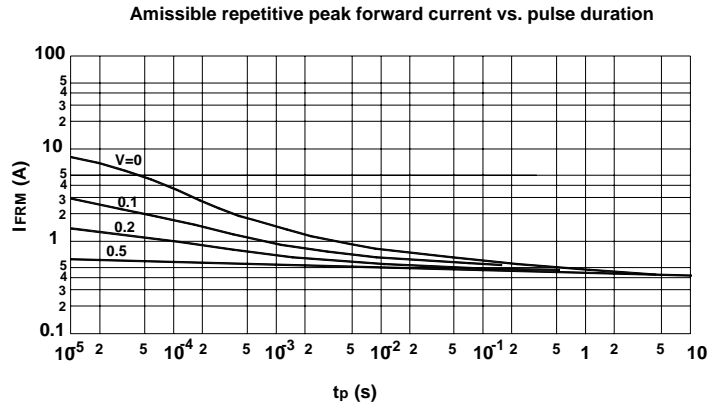
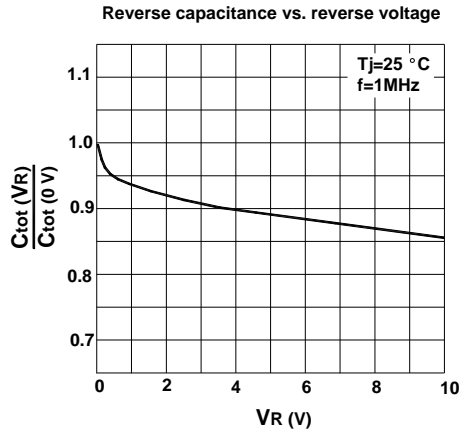
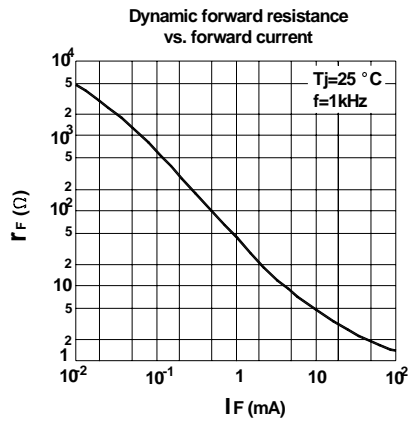
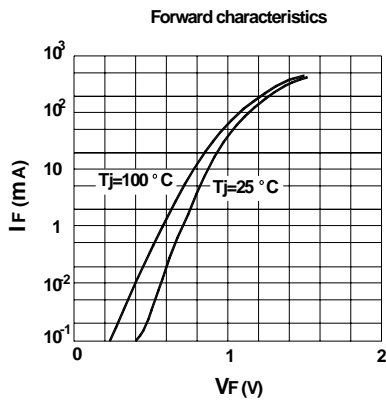
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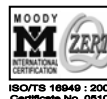
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ISO 9001:2000 Certificate No. 080908  
BS-ONSAS 18001: 2007 Certificate No. 7116  
IECQ QC 080000 Certificate No. 7116

Dated : 07/04/2009

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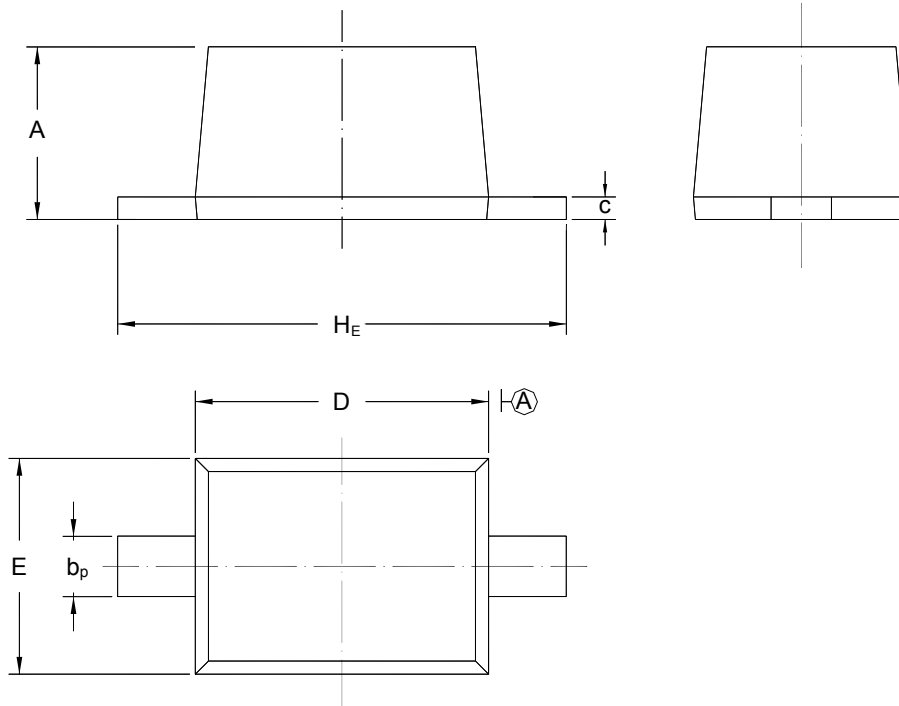
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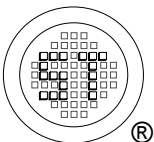
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

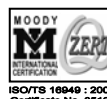
SOD-323



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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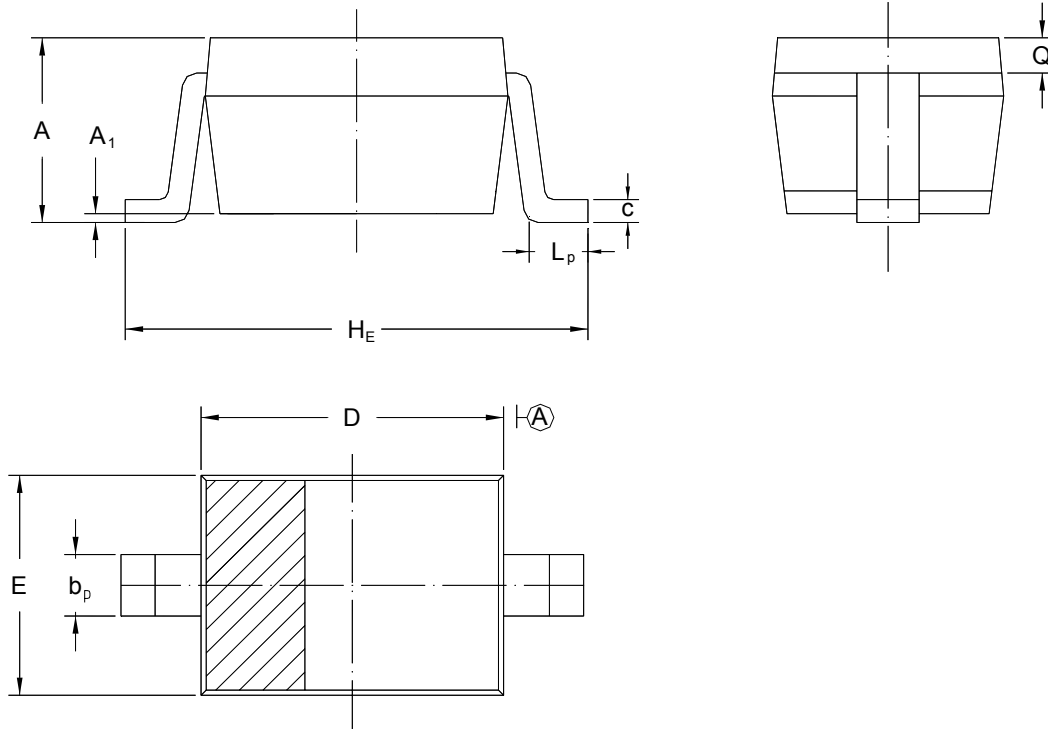
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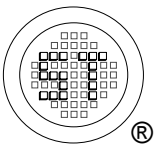
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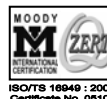
SOD-323



UNIT	A	A <sub>1</sub>	b <sub>p</sub>	C	D	E	H <sub>E</sub>	L <sub>p</sub>	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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