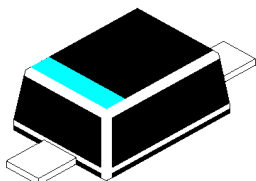


## SILICON EPITAXIAL SWITCHING DIODE

1N4148WS

SOD-323  
PLASTIC PACKAGE



### Marking

1N4148WS= W2 with cathode band

### Fast Switching Diode

### ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	$V_R$	75	V
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Average rectified Current half wave rectification with resistive load $f > 50$ Hz	$*I_F (AV)$	150	mA
Surge Forward Current $t < 1$ s and $T_j = 25^\circ\text{C}$	$I_{FSM}$	350	mA
Power Dissipation @ $T_{amb} = 25^\circ\text{C}$	$*P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to +150	$^\circ\text{C}$

### THERMAL RESISTANCE

Junction to Ambient in free air	$*R_{th (j-a)}$	650	$^\circ\text{C/W}$
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\*Valid provided that electrodes are kept at ambient Temperature

### ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	$V_F$	$I_F = 10\text{mA}$		1.0	V
Reverse Current	$I_R$	$V_R = 20\text{V}$		25	nA
		$V_R = 20\text{V}, T_j = 150^\circ\text{C}$		50	$\mu\text{A}$
		$V_R = 75\text{V}$		5.0	$\mu\text{A}$

### DYNAMIC CHARACTERISTICS

Diode Capacitance	$C_d$	$V_R = 0\text{V}, f = 1\text{MHz}$		4.0	pF
Voltage Rise When Switching On (tested with 50ms pulses)	$V_{fr}$	tested with $= 50\text{mA}$ pulses, $t_p = 0.1\mu\text{s}$ , rise time $= < 30\text{ ns}$ , $t_p = (5 \text{ to } 100)\text{ KHz}$		2.5	ns
Reverse Recovery Time	$t_{rr}$	$I_F = 10\text{mA}$ , to $I_R = 60\text{mA}$ $R_L = 100\ \Omega$ Measured @ $I_R = 1\text{mA}$		4.0	ns
Rectification Efficiency	$\eta_V$	$f = 100\text{MHz}, V_{RF} = 2\text{V}$	0.45		

1N4148WSRev2 120712E



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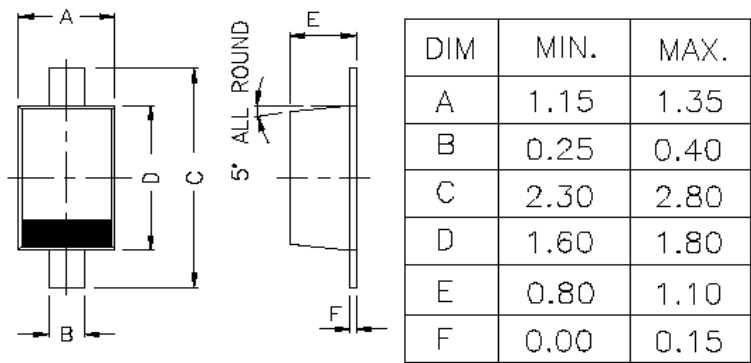
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1N4148WS

SOD-323  
PLASTIC PCAKAGE

PACKAGE SOD-323 FL



All dimensions are in mm  
CATHODE IS MARKED BY BAND

1N4148WSRev2 120712E



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## Customer Notes

**1N4148WS**

**SOD-323  
PLASTIC PCAKAGE**

## Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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