

## SILICON EPITAXIAL SWITCHING DIODE

1N4148WS

SOD-323  
PLASTIC PCAKAGE



### Marking

1N4148WS= A2 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 recified Current half wave rectification with resistive load $f \geq 50$ Hz	$*I_{F(AV)}$	150	mA
Surge Forward Current $t < 1s$ and $T_j=25^\circ C$	$I_{FSM}$	350	mA
Power Dissipation @ $T_{amb}=25^\circ C$	$*P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	- 65 to +150	$^\circ C$

### THERMAL RESISTANCE

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

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

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

### DYNAMIC CHARACTERISTICS

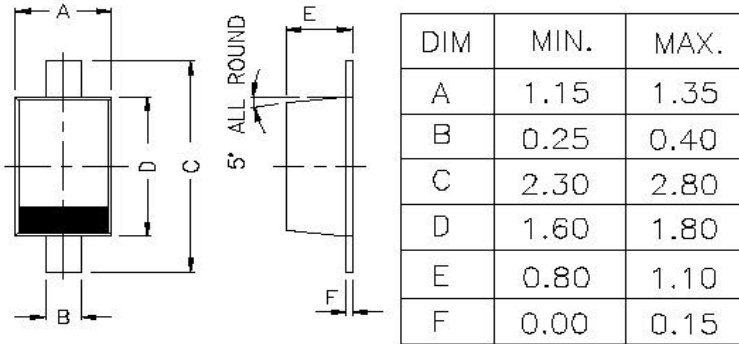
Diode Capacitance	$C_d$	$V_R=0V, f=1MHz$		4.0	pF
Voltage Rise When Switching On (tested with 50ms pulses)	$V_{fr}$	tested with=50mA pulses, $t_p=0.1\mu s$ , rise time= $<30$ ns, $t_p= (5$ to 100) KHZ		2.5	ns
Reverse Recovery Time	$t_{rr}$	$I_F=10mA$ , to $I_R=60mA$ $R_L=100 \Omega$ Measured @ $I_R=1mA$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

1N4148WSRev140604E

**1N4148WS**

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PACKAGE SOD-323 FL



All dimensions are in mm  
CATHODE IS MARKED BY BAND

**1N4148WSRev140604E**

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com

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