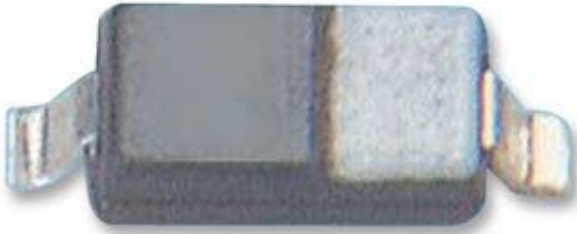


Silicon Epitaxial Switching Diode

Feature:

- Fast Switching Diode.



Marking

1N4148WS= A2 with cathode band.

Absolute Maximum Ratings

Description	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	75	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	
Average rectified 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	
Power Dissipation at $T_{amb} = 25^\circ C$	$*P_{tot}$	200	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	- 65 to +150	

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

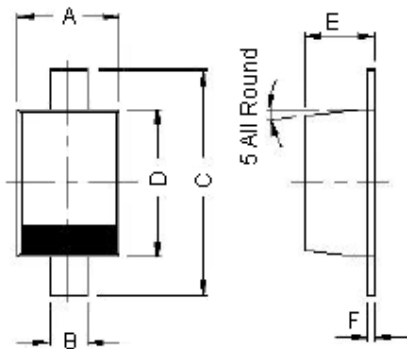
Electrical Characteristics ($T_{amb} = 25^{\circ}\text{C}$ unless specified otherwise)

Description	Symbol	Test Condition	Minimum	Maximum	Unit
Forward Voltage	V_F	$I_F = 10\text{mA}$	-	1.0	V
Reverse Current	I_R	$V_R = 20\text{V}$ $V_R = 20\text{V}, T_J = 150^{\circ}\text{C}$	-	25 50	nA μA
		$V_R = 75\text{V}$	-	5.0	μA

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 = 50mA pulses, $t_p = 0.1\mu\text{s}$, rise time = <30 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 at $I_R = 1\text{mA}$	-	4.0	ns
Rectification Efficiency	η_v	$f = 100\text{MHz}, V_{RF} = 2\text{V}$	0.45	-	-

Package SOD - 323 FL



Dimensions : Millimetres

Dimension	Minimum	Maximum
A	1.15	1.35
B	0.25	0.40
C	2.30	2.80
D	1.60	1.80
E	0.80	1.10
F	0.00	0.15

Dimensions : Millimetres

Cathode is Marked by Band

Part Number Table

Description	Part Number
Diode, High Speed SOD - 323	1N4148WS

Notes:

International Sales Offices:

 AUSTRALIA - Farnell Tel No: ++61 1300 361 005 Fax No: ++61 1300 361 225	 FINLAND - Farnell Tel No: ++358 9 560 7780 Fax No: ++358 9 345 5411	 ITALY - Farnell Tel No: ++39 02 93 995 200 Fax No: ++39 02 93 995 300	 SPAIN - Farnell Tel No: 901 20 20 80 Fax No: 901 20 20 90
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