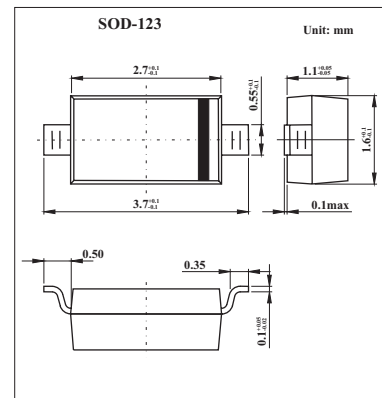


Surface Mount Fast Switching Diodes

1N4148W

■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

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

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$	I_{FSM}	2.0	A
@ $t = 1.0\text{s}$		1.0	
Power Dissipation	P_D	400	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	315	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	$^\circ\text{C}$

1N4148W■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Reverse Breakdown Voltage (*)	$V_{(BR)R}$	$I_R = 1.0 \mu\text{A}$	75			V
Forward Voltage (*)	V_F	$I_F = 1.0\text{mA}$			0.715	V
		$I_F = 10\text{mA}$			0.855	
		$I_F = 50\text{mA}$			1.0	
		$I_F = 150\text{mA}$			1.25	
Leakage Current (*)	I_R	$V_R = 75\text{V}$			1.0	μA
		$V_R = 75\text{V}, T_j = 150^\circ\text{C}$			50	
		$V_R = 25\text{V}, T_j = 150^\circ\text{C}$			30	
		$V_R = 20\text{V}$			25	nA
Total Capacitance	C_T	$V_R = 0, f = 1.0\text{MHz}$			2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4.0	ns

* Short duration test pulse used to minimize self-heating effect.

■ Marking

Marking	T4
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