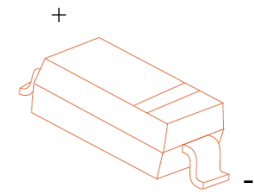


## SOD-123 Plastic-Encapsulate Diodes

### RS1N4148W

FAST SWITCHING DIODE

SOD-123



#### FEATURES

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

#### MARKING: T4

#### Maximum Ratings and Electrical Characteristics, Single Diode @ $T_a=25^\circ\text{C}$

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	71	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	150	mA
Peak Forward Surge Current @ $t=1.0\mu\text{s}$ @ $t=1.0\text{s}$	$I_{FSM}$	2.0 1.0	A
Power Dissipation	$P_d$	500	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55~+150	$^\circ\text{C}$

#### Electrical Ratings @ $T_a=25^\circ\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	$V_{F1}$			0.715	V	$I_F=1\text{mA}$
	$V_{F2}$			0.855	V	$I_F=10\text{mA}$
	$V_{F3}$			1.0	V	$I_F=50\text{mA}$
	$V_{F4}$			1.25	V	$I_F=150\text{mA}$
Reverse current	$I_{R1}$			1	$\mu\text{A}$	$V_R=75\text{V}$
	$I_{R2}$			25	nA	$V_R=20\text{V}$
Capacitance between terminals	$C_T$			2	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse recovery time	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

# Typical Characteristics

