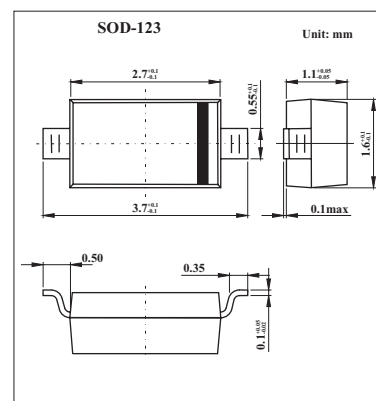


## SMALL SIGNAL DIODES

## 1N4151W

## ■ Features

- Silicon Epitaxial Planar Diode
- Fast switching diodes.
- This diode is also available in other case styles including:  
the SOD-123 case with the type designation 1N4151W and  
the Mini-MELF case with the type designation LL4151.

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

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	50	V
Peak reverse voltage	$V_{RM}$	75	V
Rectified current (Average) Half wave rectification with resist.load at $T_{amb} = 25^\circ\text{C}$ and $f \geq 50\text{Hz}$	$I_o$	150 <sup>(1)</sup>	mA
Surge forward current at $t < 1\text{ s}$ and $T_j = 25^\circ\text{C}$	$I_{FSM}$	500	mA
Power dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	410 <sup>(1)</sup>	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_s$	-65 to +150	$^\circ\text{C}$

NOTES::

(1) Valid provided that electrodes are kept at ambient temperature

## SMALL SIGNAL DIODES

## 1N4151W

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

Characteristic	Symbol	Min	Typ	Max	Unit
Forward voltage at $I_F = 50\text{ mA}$	$V_F$			1.0	V
Leakage current at $V_R = 50\text{ V}$	$I_R$			50	nA
at $V_R = 20\text{ V}$ , $T_j = 150^\circ\text{C}$	$I_R$			50	$\mu\text{A}$
Reverse breakdown voltage Tested with $5\text{ }\mu\text{A}$ pulses	$V_{(BR)R}$	75			V
Capacitance at $V_F = V_R = 0\text{ V}$	$C_{tot}$			2	pF
Reverse recovery time from $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ , to $I_R = 1\text{ mA}$	$t_{rr}$			4	ns
from $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$			2	ns
Thermal Resistance Junction to Ambient Air	$R_{thJA}$			450 <sup>(1)</sup>	$^\circ\text{C/W}$
Rectification Efficiency at $f = 100\text{ MHz}$ , $V_{RF} = 2\text{ V}$	$\eta_V$	0.45			

NOTES::

(1) Valid provided that electrodes are kept at ambient temperature (SOD-123)