

# 1N4151

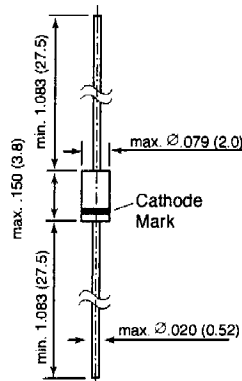
## SMALL SIGNAL DIODES

### FEATURES

- ◆ Silicon Epitaxial Planar Diode
- ◆ Fast switching diode.
- ◆ 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.



**DO-35**



Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case:** DO-35 Glass Case  
**Weight:** approx. 0.13 g

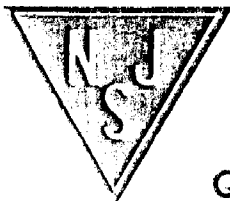
### MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Reverse Voltage	V <sub>R</sub>	50	Volts
Peak Reverse Voltage	V <sub>RM</sub>	75	Volts
Rectified Current (Average) Half Wave Rectification with Resist. Load at Tamb = 25 °C and f ≥ 50 Hz	I <sub>O</sub>	150 <sup>(1)</sup>	mA
Surge Forward Current at t < 1s and T <sub>j</sub> = 25°C	I <sub>FSM</sub>	500	mA
Power Dissipation at Tamb = 25°C	P <sub>tot</sub>	500 <sup>(1)</sup>	mW
Junction Temperature	T <sub>j</sub>	175	°C
Storage Temperature Range	T <sub>S</sub>	- 65 to +175	°C

**NOTES:**

(1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature



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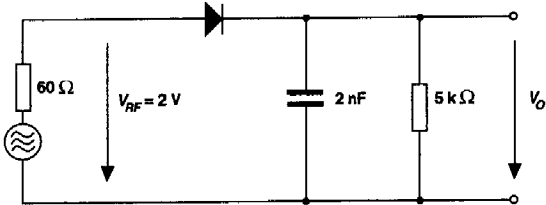
## ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward Voltage at $I_F = 50 \text{ mA}$	$V_F$	–	–	1.0	Volts
Leakage Current at $V_R = 50 \text{ V}$ at $V_R = 50 \text{ V}, T_j = 150 \text{ }^\circ\text{C}$	$I_R$ $I_R$	– –	– –	50 50	nA $\mu\text{A}$
Reverse Breakdown Voltage Tested with $5\mu\text{A}$ pulses	$V_{(BR)R}$	75	–	–	Volts
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 $I_R = 1 \text{ mA}$ from $I_F = 10 \text{ mA}$ to $I_R = 1 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \text{ } \Omega$	$t_{rr}$ $t_{rr}$	– –	– –	4 2	ns ns
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	–	–	$350^{(1)}$	$^\circ\text{C/W}$
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.



Rectification Efficiency Measurement Circuit