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1N4151 Small Signal Diode

Features:

- DO-35 Package

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$, Note 1 unless otherwise specified)

Max. Repetitive Reverse Voltage, V_{RRM}	75V
Power Dissipation, P_D	500mW
Average Rectified Forward Current, $I_{F(AV)}$	150mA
None-Repetitive Forward Surge Current, I_{FSM}	
Pulse Width = 1.0 seconds	0.5A
Pulse Width = 1.0 microsecond	2.0A
Operating Junction Temperature, T_J	+175°C
Storage Temperature Range, T_{stg}	-65° to +175°C
Thermal Resistance, Junction-to-Ambient, R_{thJA}	+300°C/W

Note 1. These ratings are limiting values above which the serviceability of the device may be impaired.

Note 2. These ratings are based on a maximum junction temperature of +200°C.

Note 3. These are steady state limits.

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R = 5\mu\text{A}$	75	-	-	V
Forward Voltage	V_F	$I_F = 50\text{mA}$, Note 4	-	-	1.0	V
Reverse Current	I_R	$V_R = 50\text{V}$, Note 4	-	-	50	nA
		$V_R = 50\text{V}$, $T_A = +150^\circ\text{C}$, Note 4	-	-	50	μA
Total Capacitance	C_T	$V_R = 0$, $f = 1\text{MHz}$	-	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$, $I_{rr} = 1\text{mA}$, $R_L = 100\Omega$	-	-	4	ns
		$I_F = 10\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$	-	-	2	ns

Note 4. Pulse test: Pulse Width = 300 μs , Duty Cycle = 2%.

