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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	$\mu\text{A}$
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 $\mu\text{s}$ , Duty Cycle = 2%.

