

# 1N4151



**DO-35**

Color Band Denotes Cathode

## Small Signal Diode

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	75	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	150	mA
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	0.5	A
		2.0	A
T <sub>stg</sub>	Storage Temperature Range	-65 to +175	°C
T <sub>J</sub>	Operating Junction Temperature	175	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	500	mW
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	300	°C/W

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 5.0 μA	75		V
V <sub>F</sub> *	Forward Voltage	I <sub>F</sub> = 50 mA		1.0	V
I <sub>R</sub> *	Reverse Current	V <sub>R</sub> = 50 V		50	nA
		V <sub>R</sub> = 50 V, T <sub>A</sub> = 150°C		50	μA
C <sub>T</sub>	Total Capacitance	V <sub>R</sub> = 0 V, f = 1.0 MHz		2.0	pF
t <sub>rr1</sub>	Reverse Recovery Time	I <sub>F</sub> = I <sub>R</sub> = 10 mA, I <sub>RR</sub> = 1.0 mA, R <sub>L</sub> = 100Ω		4.0	ns
t <sub>rr2</sub>	Reverse Recovery Time	I <sub>F</sub> = 10 mA, V <sub>R</sub> = 6.0 V, R <sub>L</sub> = 100Ω		2.0	ns

\*Pulse test : Pulse width=300us, Duty Cycle=2%

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