

# 1N4151



DO-35

Color Band Denotes Cathode

## Small Signal Diode

### Absolute Maximum Ratings\*

 $T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	75	V
$I_{F(AV)}$	Average Rectified Forward Current	150	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	0.5 2.0	A A
$T_{stg}$	Storage Temperature Range	-65 to +175	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	175	$^\circ\text{C}$

\* 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
$P_D$	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

### Electrical Characteristics

 $T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
$V_R$	Breakdown Voltage	$I_R = 5.0 \mu\text{A}$	75		V
$V_F^*$	Forward Voltage	$I_F = 50 \text{ mA}$		1.0	V
$I_R^*$	Reverse Current	$V_R = 50 \text{ V}$ $V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$		50 50	nA $\mu\text{A}$
$C_T$	Total Capacitance	$V_R = 0 \text{ V}, f = 1.0 \text{ MHz}$		2.0	pF
$t_{rr1}$	Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA},$ $R_L = 100\Omega$		4.0	ns
$t_{rr2}$	Reverse Recovery Time	$I_F = 10 \text{ mA}, V_R = 6.0 \text{ V},$ $R_L = 100\Omega$		2.0	ns

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

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