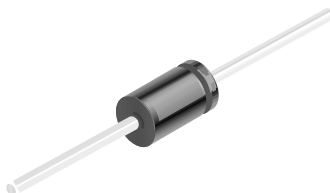


1N4151



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 | A |
| | | 2.0 | 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 | $V_R = 50 \text{ V}$ | | 50 | nA |
| | | $V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$ | | 50 | μA |
| 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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