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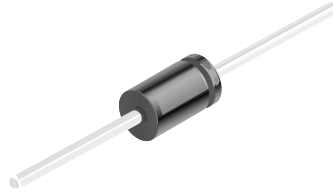
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# 1N4151



**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<br>Pulse Width = 1.0 second<br>Pulse Width = 1.0 microsecond | 0.5<br>2.0  | A<br>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   | $^\circ\text{C/W}$ |

## 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       | $V_R = 50 \text{ V}$<br>$V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$      |     | 50<br>50 | nA<br>$\mu\text{A}$ |
| $C_T$       | Total Capacitance     | $V_R = 0 \text{ V}, f = 1.0 \text{ MHz}$                                   |     | 2.0      | pF                  |
| $t_{\pi 1}$ | Reverse Recovery Time | $I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA},$<br>$R_L = 100\Omega$ |     | 4.0      | ns                  |
| $t_{\pi 2}$ | Reverse Recovery Time | $I_F = 10 \text{ mA}, V_R = 6.0 \text{ V},$<br>$R_L = 100\Omega$           |     | 2.0      | ns                  |

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

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| Bottomless™                          | FASTr™              | MicroFET™     | QFET®               | SuperSOT™-8     |
| CoolFET™                             | FRFET™              | MicroPak™     | QS™                 | SyncFET™        |
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