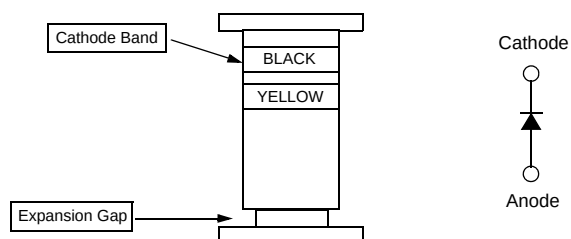


# FDLL4151

## Small Signal Diode

### General Description

A general purpose diode that couples high forward conductance fast switching speed and high blocking voltages in a glass leadless LL-34 surface mount package. Placement of the expansion gap has no relationship to the location of the cathode terminal which is indicated by the first color band.



### 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   | 200         | mA               |
| $I_{FSM}$   | Non-repetitive Peak Forward Current |             |                  |
|             | Pulse Width = 1.0 second            | 1.0         | A                |
|             | Pulse Width = 1.0microsecond        | 4.0         | A                |
| $T_{STG}$   | Storage Temperature Range           | -65 to +200 | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature      | -65 to +200 | $^\circ\text{C}$ |

\* 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 | 350   | $^\circ\text{C/W}$ |

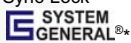
### Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

| Symbol    | Parameter             | Conditions                                                                     | Min. | Max. | Units         |
|-----------|-----------------------|--------------------------------------------------------------------------------|------|------|---------------|
| $V_R$     | Breakdown Voltage     | $I_R = 5\mu\text{A}$                                                           | 75   |      | V             |
| $V_F$     | Forward Voltage       | $I_F = 50\text{mA}$                                                            |      | 1    | V             |
| $I_R$     | Reverse Current       | $V_R = 50\text{V}$                                                             |      | 50   | nA            |
|           |                       | $V_R = 30\text{V}, T_A = 150^\circ\text{C}$                                    |      | 50   | $\mu\text{A}$ |
| $C_T$     | Total Capacitance     | $V_R = 0, f = 1.0\text{MHz}$                                                   |      | 4    | pF            |
| $t_{rr1}$ | Reverse Recovery Time | $I_F = I_R = 10\text{mA}, I_{RR} = 1\text{mA}$<br>$R_L = 100\Omega$            |      | 4    | ns            |
| $t_{rr2}$ | Reverse Recovery Time | $V_R = 6\text{V}, I_F = 10\text{mA}, I_{RR} = 1\text{mA}$<br>$R_L = 100\Omega$ |      | 2    | ns            |



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| Datasheet Identification | Product Status        | Definition                                                                                                                                                                                          |
|--------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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Rev. I62

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