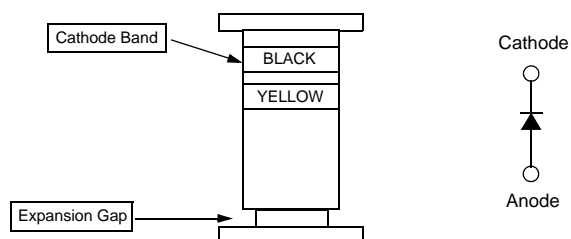


FDLL4151

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




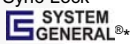
Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

| 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 | μA |
| C_T | Total Capacitance | $V_R = 0, f = 1.0\text{MHz}$ | | 4 | pF |
| t_{rr1} | Reverse Recovery Time | $I_F = I_R = 10\text{mA}, I_{RR} = 1\text{mA}$ $R_L = 100\Omega$ | | 4 | ns |
| t_{rr2} | Reverse Recovery Time | $V_R = 6\text{V}, I_F = 10\text{mA}, I_{RR} = 1\text{mA}$ $R_L = 100\Omega$ | | 2 | ns |



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|--------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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