## LL4153

## Silicon Epitaxial Planar Switching Diode

## Applications

- High-speed switching

LL-34


Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings ( $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Maximum Repetitive Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 75 | V |
| Average Rectified Forward Current | $\mathrm{I}_{\mathrm{F}(\mathrm{AV})}$ | 200 | mA |
| Non-repetitive Peak Forward Surge Current $\mathrm{t}=1 \mathrm{~s}$ <br> $\mathrm{t}=1 \mathrm{~s}$  | $\mathrm{I}_{\text {FSM }}$ | 1 | A |
| Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 500 | mW |
| Operating Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 175 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {stg }}$ | -65 to +175 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Reverse Breakdown Voltage at $I_{R}=5 \mu \mathrm{~A}$ | $\mathrm{V}_{\mathrm{R}}$ | 75 | - | V |
| Forward Voltage at $\mathrm{I}_{\mathrm{F}}=0.1 \mathrm{~mA}$ at $I_{F}=0.25 \mathrm{~mA}$ at $\mathrm{I}_{\mathrm{F}}=1 \mathrm{~mA}$ at $\mathrm{I}_{\mathrm{F}}=2 \mathrm{~mA}$ at $I_{F}=10 \mathrm{~mA}$ at $I_{F}=20 \mathrm{~mA}$ | $V_{F}$ | 0.45 0.49 0.55 0.6 0.69 0.72 | $\begin{aligned} & 0.51 \\ & 0.55 \\ & 0.61 \\ & 0.67 \\ & 0.76 \\ & 0.86 \end{aligned}$ | V |
| Reverse Current at $V_{R}=50 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | - | 50 | nA |
| Total Capacitance at $V_{R}=0, f=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {T }}$ | - | 2 | pF |
| Reverse Recovery Time at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}, \mathrm{~V}_{\mathrm{R}}=6 \mathrm{~V}, \mathrm{R}_{\mathrm{L}}=100 \Omega, \mathrm{I}_{\mathrm{rr}}=1 \mathrm{~mA}$ | $\mathrm{t}_{\text {r1 }}$ | - | 2 | ns |
| Reverse Recovery Time at $I_{\mathrm{F}}=\mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega, \mathrm{I}_{\mathrm{rr}}=1 \mathrm{~mA}$ | $\mathrm{trr2}$ | - | 4 | ns |

