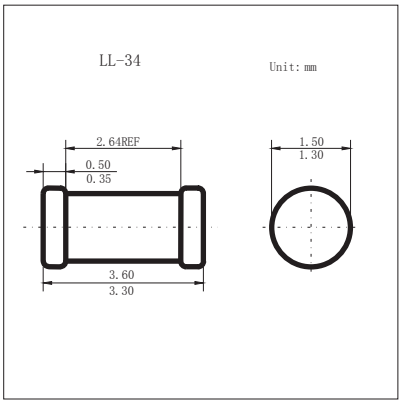
# Switching Diodes

# KLL4148




## ■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- General Purpose Rectification
- Silicon Epitaxial Planar Construction

## ■ Absolute Maximum Ratings (Ta = 25 °C, unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | 100 | V |
| Reverse voltage | $V_R$ | 75 | |
| Peak forward surge current ($t_p$ = 1 μs) | $I_{FSM}$ | 2 | A |
| Repetitive peak forward current | $I_{FRM}$ | 500 | mA |
| Forward continuous current | $I_F$ | 300 | |
| Average forward current | $I_{F(AV)}$ | 150 | |
| Thermal resistance junction to ambient air *1 | $R^{\theta}_{JA}$ | 300 | ℃/W |
| Power dissipation *1 | $P_{tot}$ | 500 | mW |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature | $T_{stg}$ | -55 to 150 | |

* 1 Valid provided that electrodes are kept at ambient temperature

## ■ Electrical Characteristics (Ta = 25 °C, unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse breakdown voltage | $V_R$ | $I_R$=100μA | 100 | | | V |
| Forward voltage | $V_F$ | $I_F$=1mA | | | 0.715 | |
| | | $I_F$=10mA | | | 0.855 | |
| | | $I_F$=50mA | | | 1 | |
| | | $I_F$=150mA | | | 1.25 | |
| Reverse voltage leakage current | $I_R$ | $V_R$=20V | | | 25 | nA |
| | | $V_R$=75V | | | 1 | μA |
| Junction capacitance | $C_j$ | $V_R$=4V, f=1MHz | | | 4 | pF |
| Reverse recovery time | $t_{rr}$ | $I_F$=$I_R$=10mA,$I_{rr}$=0.1x$I_R$, $R_L$=100Ω | | | 4 | ns |

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■ Typical Characterisitics