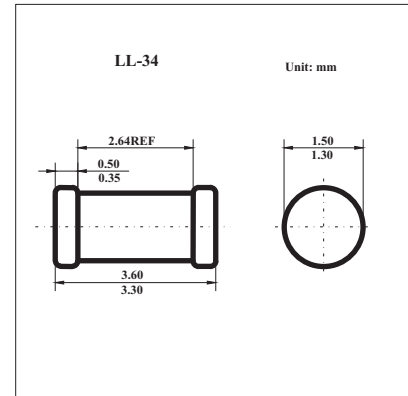


Fast Switching Surface Mount Diodes

KLL4148



■ Features

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

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|------------------------------------------------------------------------------------------|-----------------|-------------|----------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 100 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | | |
| Working Peak Reverse Voltage | V_{RWM} | 75 | V |
| DC Blocking Voltage | V_R | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 53 | V |
| Forward Continuous Current (*) | I_{FM} | 300 | mA |
| Average Rectified Output Current (*) | I_o | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$ @ $t = 1.0\text{s}$ | I_{FSM} | 2.0 | A |
| | | 1.0 | |
| Power Dissipation (*) Derate Above 25°C | P_D | 500 | mW |
| | | 1.68 | mW/ $^\circ\text{C}$ |
| Thermal Resistance Junction to Ambient Air (*) | $R_{\theta JA}$ | 300 | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +175 | $^\circ\text{C}$ |

* Valid provided that device terminals are kept at ambient temperature.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|------------------------------|----------|---------------------------------------------------------------------------------------|-----|-----|-----|---------------|
| Maximum Forward Voltage | V_{FM} | $I_F = 10\text{mA}$ | | | 1.0 | V |
| Maximum Peak Reverse Current | I_{RM} | $V_R = 75\text{V}$ | | | 5.0 | μA |
| | | $V_R = 70\text{V}, T_j = 150^\circ\text{C}$ | | | 50 | |
| | | $V_R = 20\text{V}, T_j = 150^\circ\text{C}$ | | | 30 | |
| | | $V_R = 20\text{V}$ | | | 25 | nA |
| Capacitance | C_j | $V_R = 0, f = 1.0\text{MHz}$ | | | 4.0 | pF |
| Reverse Recovery Time | t_{rr} | $I_F = 10\text{mA}$ to $I_R = 1.0\text{mA}$, $V_R = 6.0\text{V}, R_L = 100\Omega$ | | | 4.0 | ns |