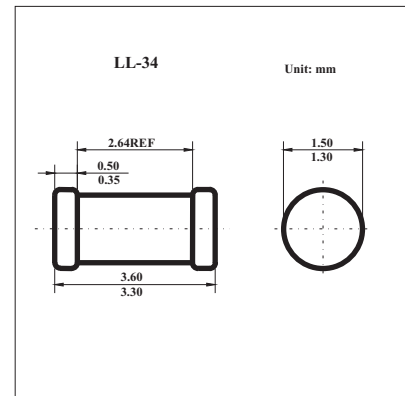


## Fast Switching Surface Mount Diodes

## 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 @ $t = 1.0 \mu\text{s}$	$I_{FSM}$	2.0	A
@ $t = 1.0\text{s}$		1.0	
Power Dissipation (*)	$P_D$	500	mW
Derate Above $25^\circ\text{C}$		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	$\mu\text{A}$
		$V_R = 70\text{V}, T_j = 150^\circ\text{C}$			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