LL4148

LL-34 Glass-Encapsulate Diodes

Small Signal Fast Switching Diodes

Features

- V_R 75V
- I_{FAV} 150mA
- Fast Switching Device (TRR <4.0 nS)

Applications

- Extreme fast switches

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Repetitive peak reverse voltage	V_{RRM}	V		100
Reverse voltage	V_R	V		75
Peak forward surge current	I_{FSM}	A	t_p=1μs	2
Repetitive peak forward current	I_{FRM}	mA		500
Forward continuous current	I_F	mA		300
Average forward current	I_{FAV}	mA	V_R=0	150
Power dissipation	P_{tot}	mW		500[1)]
Thermal resistance	R_{thJA}	℃/W	junction to ambient air	300[1)]
Maximum junction temperature	T_j	℃		175
Storage temperature range	T_{stg}	℃		-65 to +175

Notes:

Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Max
Forward voltage	V_F	mV	I_F=10mA	1000
Reverse current	I_R	nA	V_R=20V	25
	I_R	μA	V_R=20V,T_j=150℃	50
	I_R	μA	V_R=75V	5
Breakdown voltage	$V_{(BR)}$	V	I_R=100μA , t_p/T=0.01, t_p=0.3ms	100(min)
Diode capacitance	C_D	pF	V_R=0, f =1MH$_Z$, V_{HF}=50mV	4
Reverse recovery time	t_{rr}	ns	I_F= I_R=10mA , i_R=1mA	8
	t_{rr}	ns	I_F= 10mA , V_R=6V , i_R=0.1×I_R , R_L=100Ω	4

Typical Characteristics

FIG1: Forward Current vs. Forward Voltage

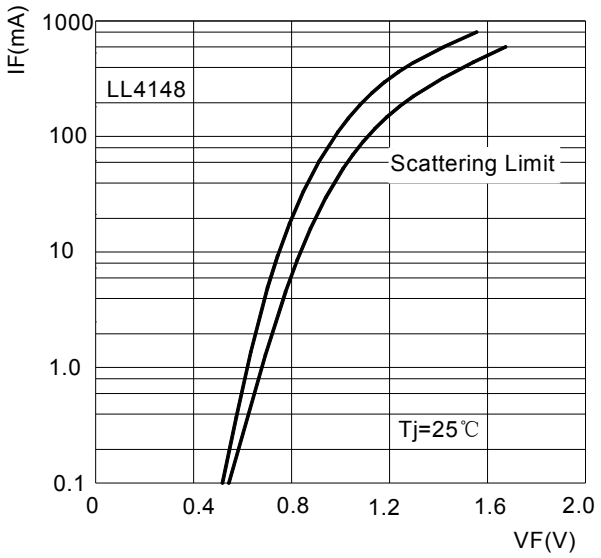


FIG2:Reverse Current vs. Reverse Voltage

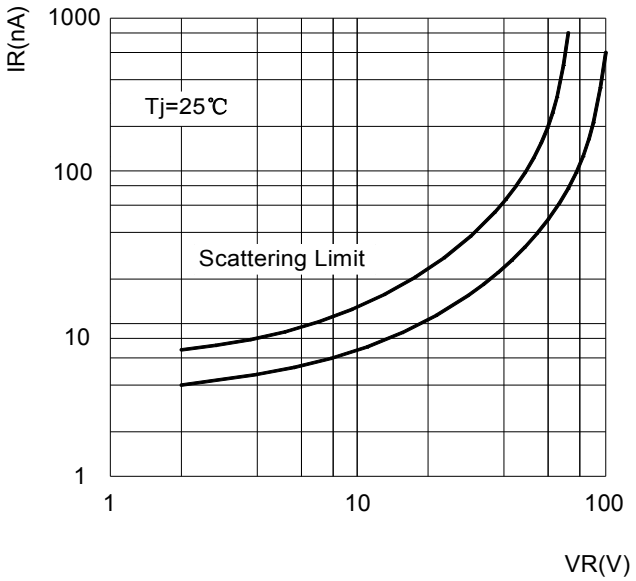
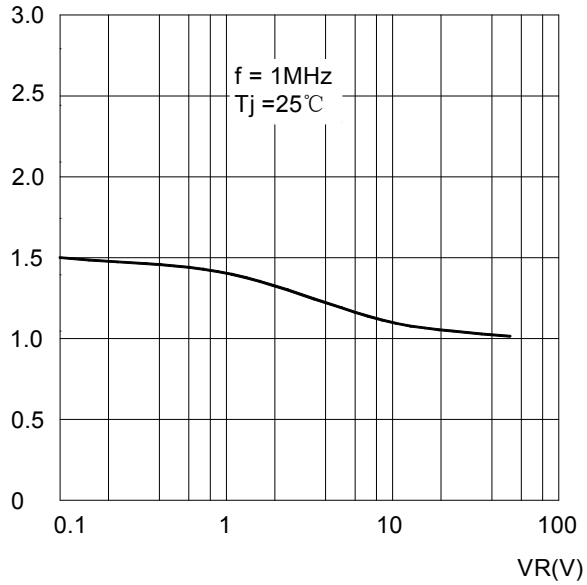
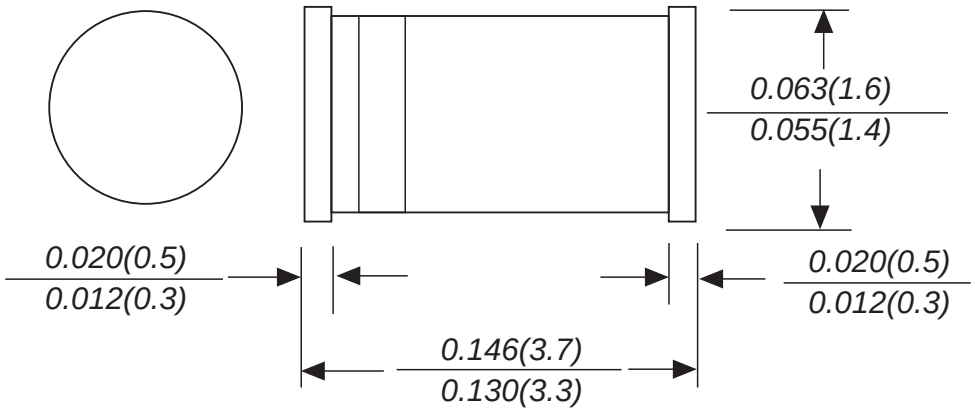


FIG3:Diode Capacitance vs. Reverse Voltage

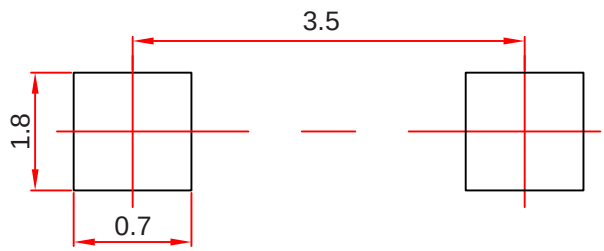


LL-34 Package Outline Dimensions

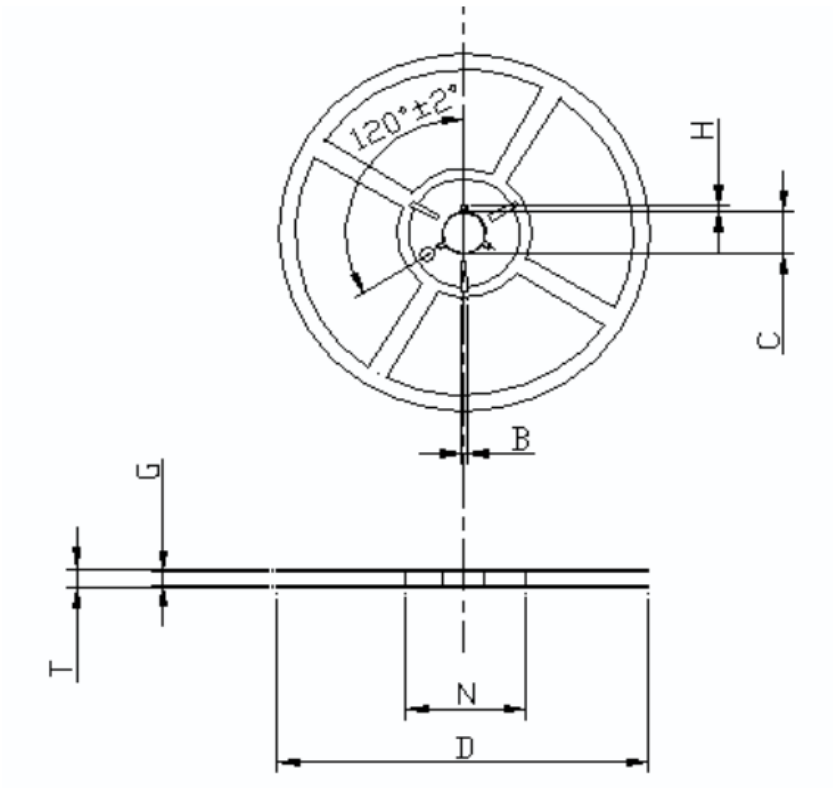


Dimensions in millimeters

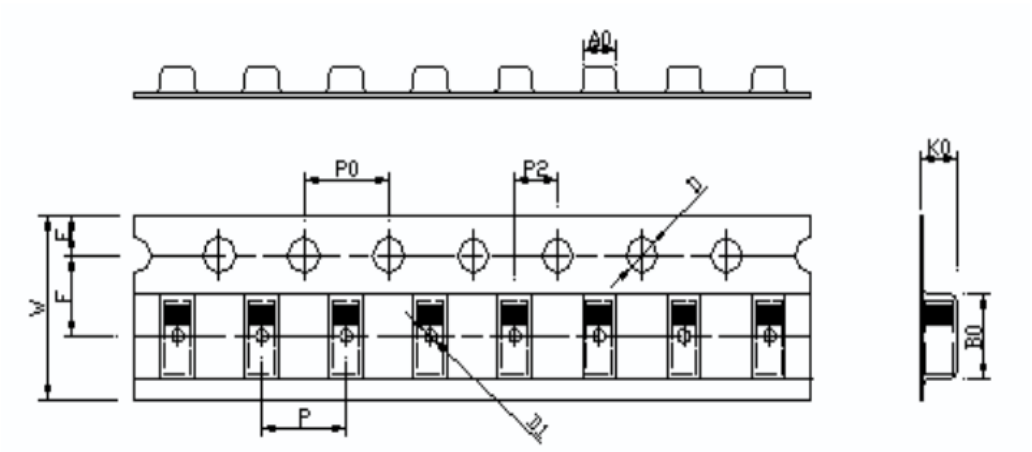
LL-34 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.



SYMBOL	B	C	D	G	H	N	T
SIZE(mm)	2±0.5	13±0.5	178±2	8.4±1.5	4±0.5	60	<14.9



SYMBOL	W	P	E	F	D	D1	P0	P2	A0	B0	K0
SIZE(mm)	8.0±0.1	4.0±0.1	1.75±0.1	3.5±0.05	1.5±0.1	1.0±0.1	4.0±0.1	2.0±0.05	1.70±0.1	3.80±0.1	1.85±0.1