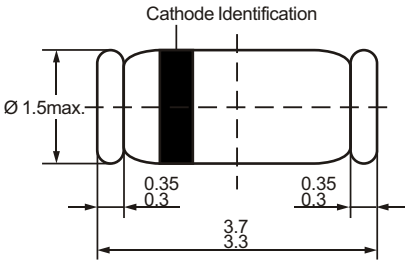
LL4148. LL4448

SILICON EPITAXIAL PLANAR DIODES

■ Features:

Electrical data identical with the devices
1N4148 and 1N4448 respectively.



■ Applications

Electrical fast switches

■ Absolute Maximum Rating (Tj=25℃)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V_{RRM}	100	V
Reverse voltage			V_R	75	V
Peak forward surge current	t_p=1us		I_{FSM}	2	A
Repetitive peak forward current			I_{FSM}	450	mA
Forward current			I_F	200	mA
Average forward current	V_R=0		I_{FAV}	150	mA
Power dissipation			Pv	500	mW
Junction temperature			T_j	175	℃
Storage temperature range			T_{stg}	-65...+175	℃

■ Characteristics (Tj=25℃)

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	IF=5mA	LL4448	V_F	0.62		0.72	V
	IF=50mA	LL4448	V_F		0.86	1	V
	IF=100mA	LL4448	V_F		0.93	1	V
Reverse current	VR=20V		I_R			25	nA
	VR=20V,Tj=150˚C		I_R			50	uA
	VR=75V		I_R			5	uA
Breakdown voltage	IR=100uA, tp/T=0.01, tp=0.3ms		$V_{(BR)}$	100			V
Diode capacitance	VR=0, f=1MHz, VHF=50mV		C_D			4	pF
Rectification efficiency	VHF=2V, f=100MHz		N_r	45			%
Rectification recovery	IF=IR=10mA, iR=1mA					8	ns
Rectification time	IF=10mA,VR=6V,iR=0.1xIR,RL=100ohm		t_{rr}			4	ns

DAIWA
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SILICON EPITAXIAL PLANAR DIODES

■ Typical Characteristics(Tj=25℃ unless otherwise specified)

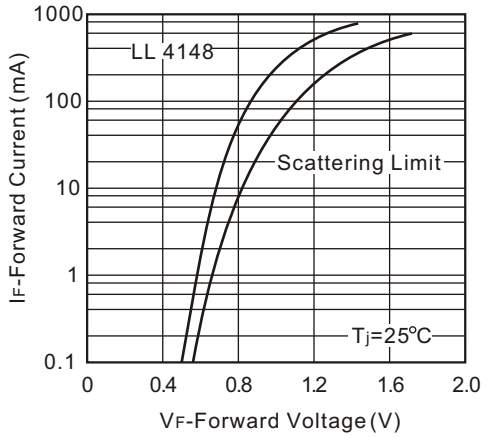


Figure 1: Forward Current vs. Forward Voltage

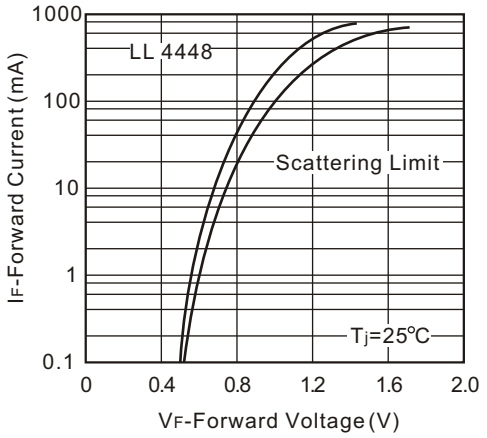


Figure 2: Forward Current vs. Forward Voltage

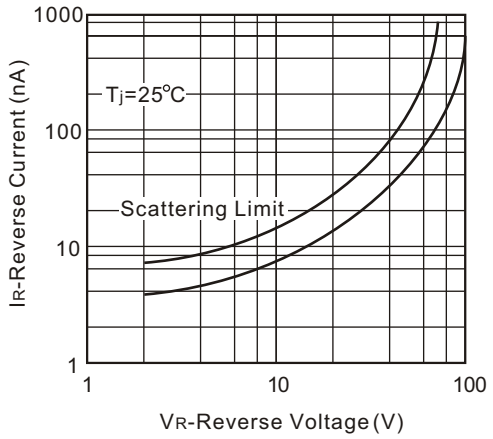


Figure 3: Reverse Current vs. Reverse Voltage

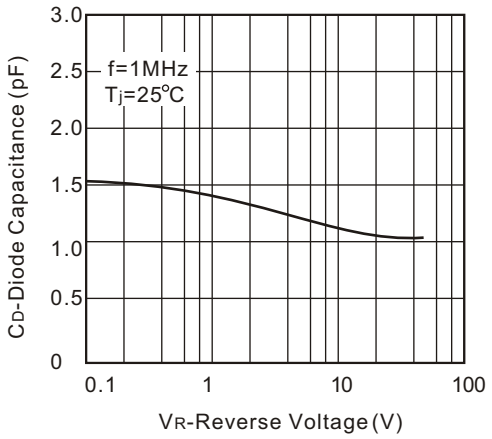
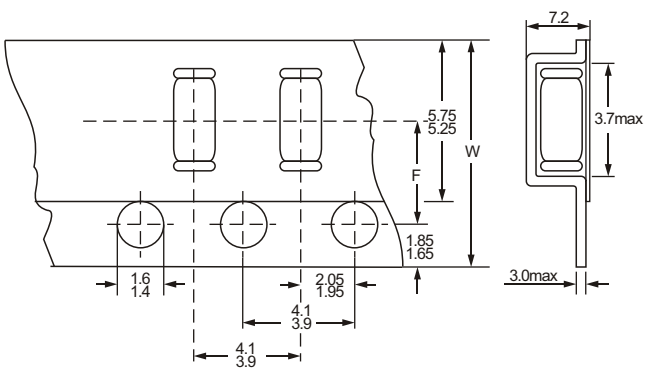
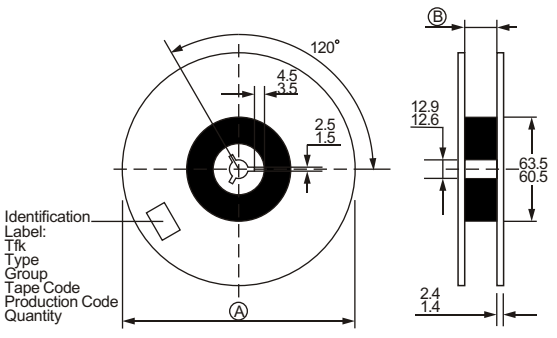


Figure 4: Diode Capacitance vs. Reverse Voltage

■ Packing specification





A: 180-2mm or 330-2mm
B: 9 to 10mm or 12.4 to 14.4mm

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