

500mW DO-35 Hermetically glass sealed switching diode

1N4148LC

Features:

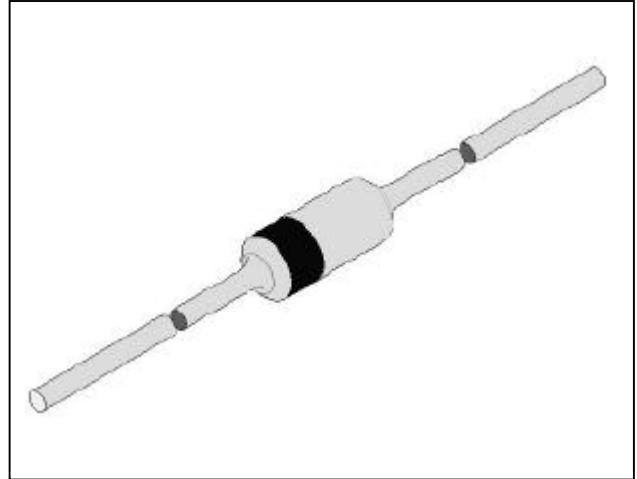
- High reliability
- High speed($t_{rr} < 4\text{ns}$)

Applications:

- Extremely fast switches

Construction:

Silicon epitaxial planar


Absolute Maximum Ratings($T_j=25^\circ\text{C}$, unless otherwise noted)

Characteristics	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	75	V
Forward Current	I_F	300	mA
Average Forward Current, $V_R=0$	I_{FAV}	150	mA
Peak Forward Surge Current, $t_p=1\mu\text{s}$	I_{FSM}	2	A
Repetitive Peak Forward Surge Current	I_{FRM}	500	mA
Power Dissipation, $T_L=25^\circ\text{C}$, 4mm from the case	P_D	500	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +175	$^\circ\text{C}$

Maximum Thermal Resistance($T_j=25^\circ\text{C}$)

Parameter	Test Conditions	Symbol	Value	Unit
Junction to Ambient Resistance	$l=4\text{mm}$, $T_L=\text{constant}$	$R_{th,JA}$	350	$^\circ\text{C/W}$

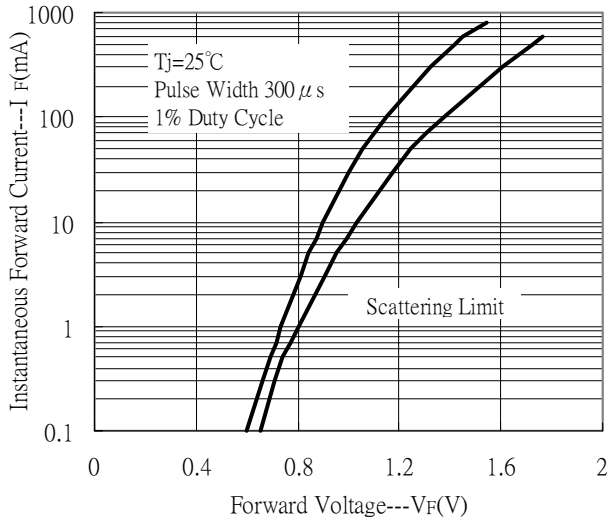
**Electrical Characteristics** (T_j=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward Voltage	I _F =10mA	V _F	-	0.86	1	V
Reverse Current	V _R =20V	I _R	-	-	25	nA
	V _R =20V, T _j =150°C	I _R	-	-	50	μA
	V _R =75V	I _R	-	-	5	μA
Breakdown Voltage	I _R =100μA, T _p /T=0.01, T _p =0.3ms	V _(BR)	100	-	-	V
Diode Capacitance	V _R =0, f=1MHz, V _{HF} =50mV	C _D			4	pF
Rectification Efficiency	V _{HF} =2V, f=100MHz	η _R	45			%
Reverse Recovery Time	I _F =10mA, V _R =6V, I _{RR} =0.1×I _R , R _L =100Ω	t _{rr}			4	ns
	I _F =I _R =10mA, I _{RR} =1mA	t _{rr}			8	ns

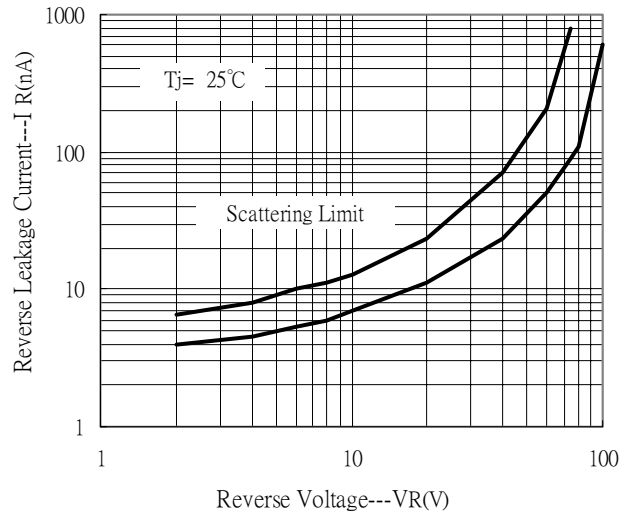


Characteristic Curves

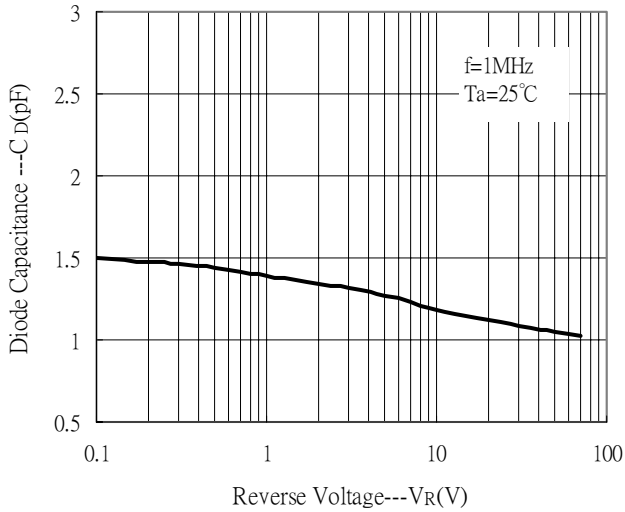
Forward Current vs Forward Voltage



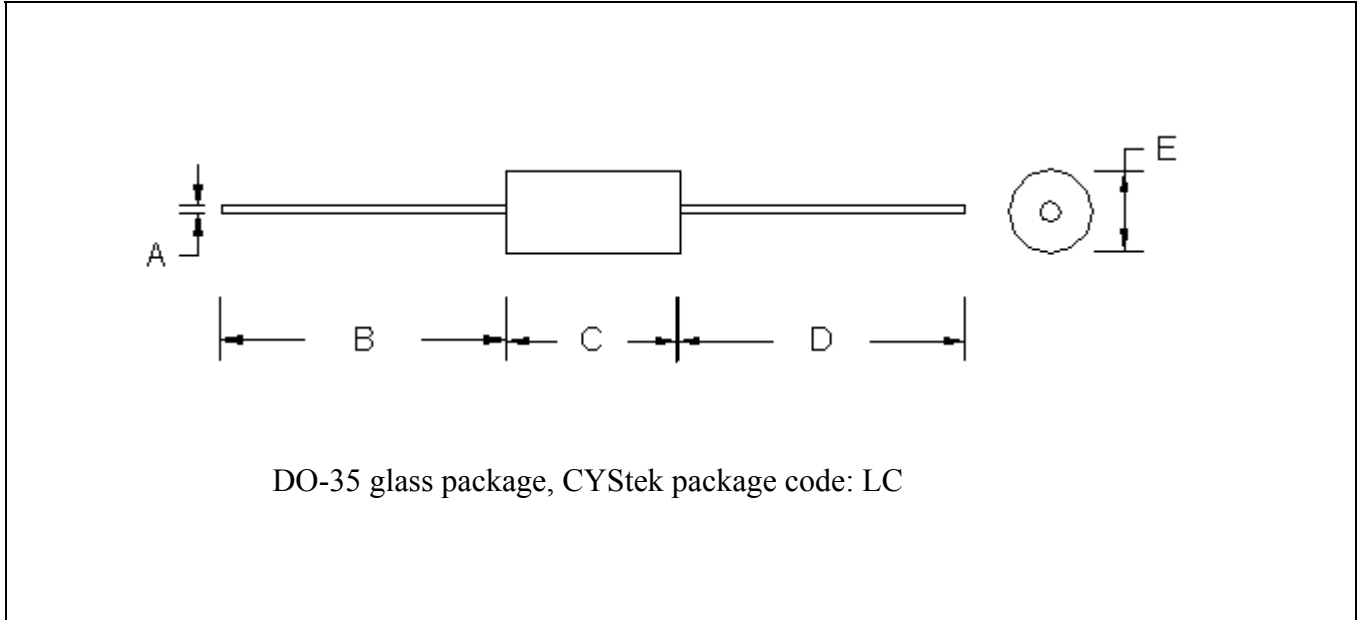
Reverse Leakage Current vs Reverse Voltage



Capacitance vs Reverse Voltage



DO-35(Glass) Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	φ0.0181	φ0.0220	φ0.46	φ0.56	D	0.9646	1.2811	24.50	32.54
B	0.9646	1.2811	24.50	32.54	E	φ0.0602	φ0.0787	φ1.53	φ2.00
C	0.1200	0.1700	3.05	4.20					

Notes : 1.Controlling dimension : millimeters.
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

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