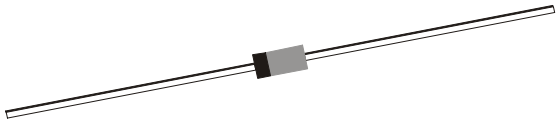
HIGH SPEED SILICON SWITCHING DIODE

1N4148, 1N4448



DO- 35
Glass Axial Package

General purpose ,Industrial, Military and space applications. Hermetically sealed glass with a stud on either side of the glass passivated chip provides excellent stability. Extremely low leakage & very high reliability

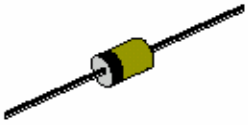
ABSOLUTE MAXIMUM RATINGS (T_a=25ºC)

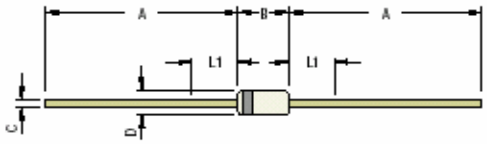
DESCRIPTION	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	75	V
Average Forward Current	$I_{F\ (AV)}$	150	mA
Forward Current (DC)	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non Repetitive Peak Surge Current tp= 1µs tp= 1sec	 I_{FSM} I_{FSM}	 2000 500	 mA mA
Power Dissipation Derating Factor	P_{TA}	500 2.85	mW mW/ ºC
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200	ºC

ELECTRICAL CHARACTERISTICS (T_a=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	I_F=5mA **1N4448**	0.62	0.72	V
		I_F=10mA **1N4148**		1.0	V
		I_F=100mA **1N4448**		1.0	V
Reverse Current	I_R	V_R=20V		25	nA
		V_R=75V		5.0	µA
		V_R=20V, T_j=150ºC		50	µA
		V_R=75V, T_j=150ºC		100	µA
Reverse Breakdown Voltage	V_{BR}	I_R=100µA	100		V
		I_R=5µA	75		V
DYNAMIC CHARACTERISTICS					
Diode Capacitance	C_d	V_R=0V, f=1MHz		4.0	pF
Forward Recovery Voltage	V_{fr}	When Switched from I_F=50mA, t_r=20ns		2.5	V
Reverse Recovery Time	t_{rr}	I_F=10mA, to I_R=60mA, R_L=100 Ω Measured at I_R=1mA		4.0	ns

DO-35
Hermetically Sealed
Glass Axial Package



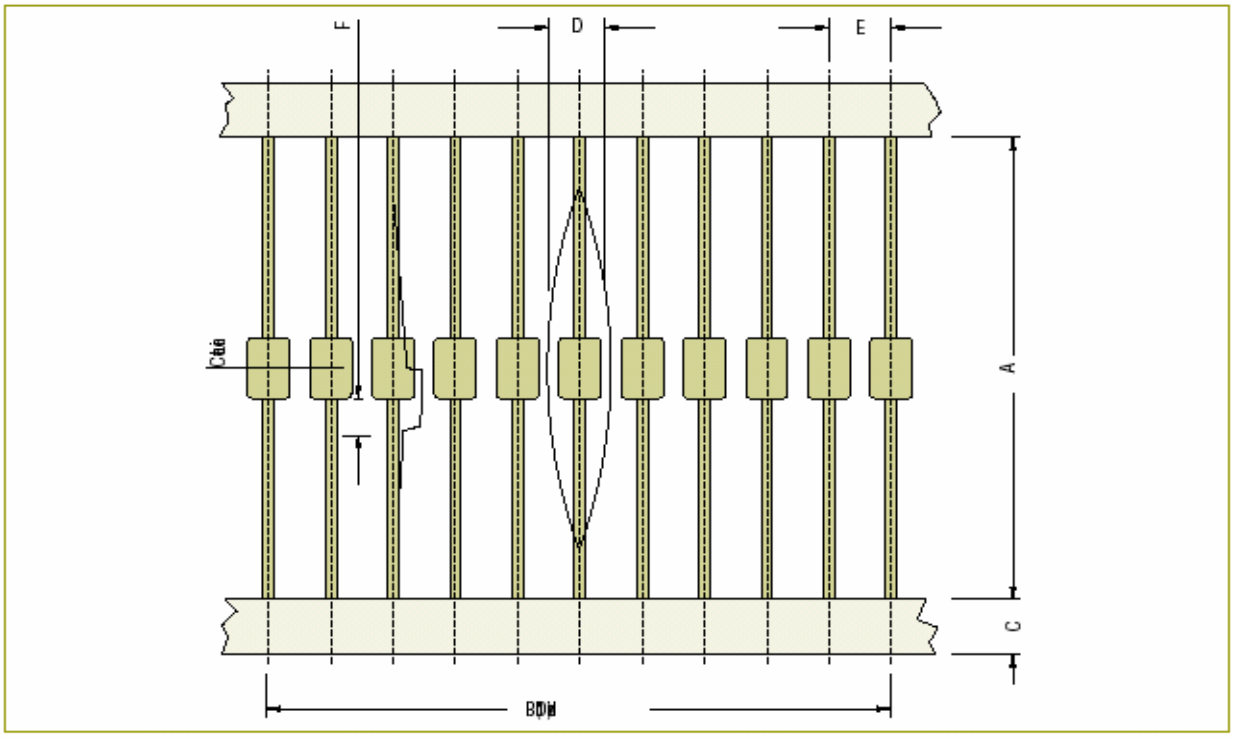


DIM	Min	Max
A	25.40	38.10
B	3.05	5.08
C	0.46	0.55
D	1.53	2.28
L1	—	1.27

Lead diameter not controlled in zone L1 to allow for flash, lead finish build-up and minor irregularities other than heat slugs.

Cathode is marked by a Band

Axial Tape and Ammo Packaging



Axial Tape Specifications

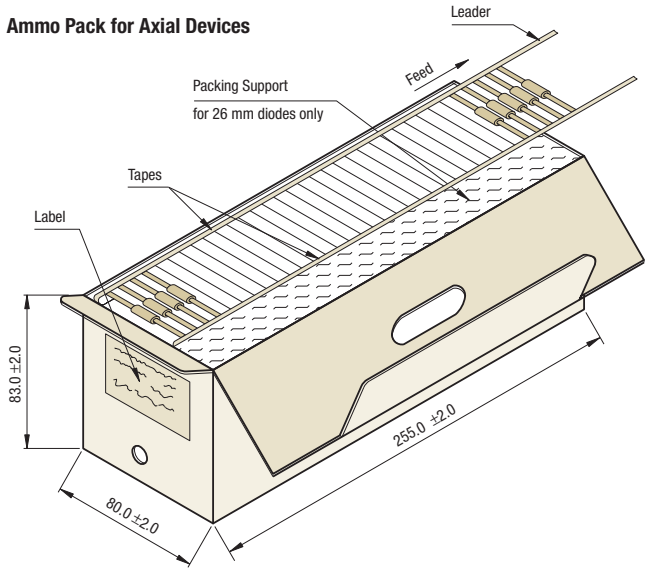
Device	Type	A		B		C		D		E		F	
	mm	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
DO-35	26 mm	26.0	26.4	48.0	52.0	5.0	6.0	—	1.5R	4.5	5.5	—	0.8
	52 mm	50.0	54.0	48.0	52.0	5.0	6.0	—	1.5R	4.5	5.5	—	1.0

Packaging Specifications ...

T & A: Tape and Ammo Pack; **T & R:** Tape and Reel; **Bulk:** Loose in Poly Bags; **Tube:** Tube and Carton; **K:** 1,000

Package / Case Type	Packaging Type	Std. Packing	Inner Carton			Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
Axial Glass/Plastic Packages								
DO-35	T & A	5,000	5K	25.5 x 8 x 8.5	0.8	125K	33 x 33 x 51	25.0

Ammo Pack for Axial Devices



Taping Specification

- 300 mm (Min) leader tape on every roll.
- No. of empty places allowed 0.25% without consecutive empty places.
- Ends of leads shall normally not protrude beyond the tapes.
- Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

Reference Drawings are not to scale

All Dimensions are in mm

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
e-mail@cdil.com www.cdilsemi.com