SILICON PLANAR SCHOTTKY DIODES

BAT42
BAT43

DO- 35
Glass Axial Package

General Purpose Metal to Silicon Diodes Featuring Very Low Turn-on Voltage and Fast Switching

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Current (DC)	*I_F	200	mA
Repetitive Peak Forward Current tp ≤1s d ≤0.5	*I_{FRM}	500	mA
Surge Non Repetitive Forward Current tp≤10ms	*I_{FSM}	4.0	A
Power Dissipation T_a=65ºC	P_D	200	mW
Storage Temperature Range	T_{stg}	- 65 to +150	ºC
Junction Temperature	T_j	- 65 to +125	ºC
Maximum Lead Temperature for Soldering during 10s at 4mm from case	T_L	230	ºC

THERMAL RESISTANCE

Junction to Ambient in free air	*$R_{th\ (j-a)}$	300	ºC/W

***On infinite heat sink with 4mm lead length**

ELECTRICAL CHARACTERISTICS (T_j=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION		MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=100µA		30		V
Forward Voltage	**V_F	I_F=200mA	**All Types**		1.0	V
		I_F=10mA	**BAT42**		0.40	V
		I_F=50mA	**BAT42**		0.65	V
		I_F=2mA	**BAT43**	0.26	0.33	V
		I_F=15mA	**BAT43**		0.45	V
Reverse Current	**I_R	V_R=25V T_j=25ºC			0.5	µA
		V_R=25V T_j=100ºC			100	µA

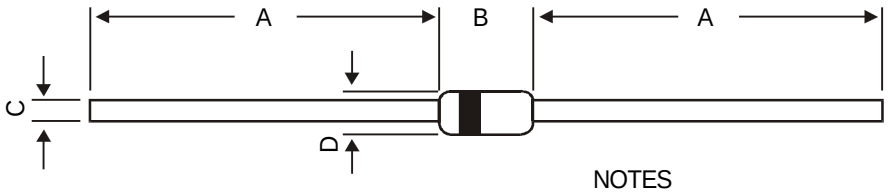
DYNAMIC CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Diode Capacitance	C_d	V_R=1V, f=1MHz	TYP 7.0		pF
Reverse Recovery Time When Switched From	t_{rr}	I_F=10mA to I_R=10mA, measured at I_{RR}=1mA, R_L=100Ω		5	ns
Detection Efficiency	π_v	R_L=15KΩ , C_L=300pF, f=45MHz, V_I=2V	80		%

Pulse test: tp=300ms d ≤2%

BAT42_43Rev300105E

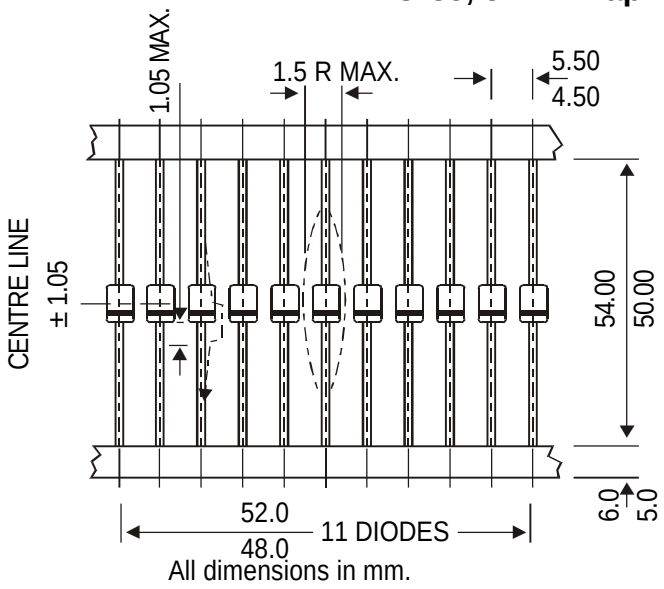
DO-35 Glass Axial Package



NOTES
1. Cathode is marked by Band.
2. All dimensions are in mm.

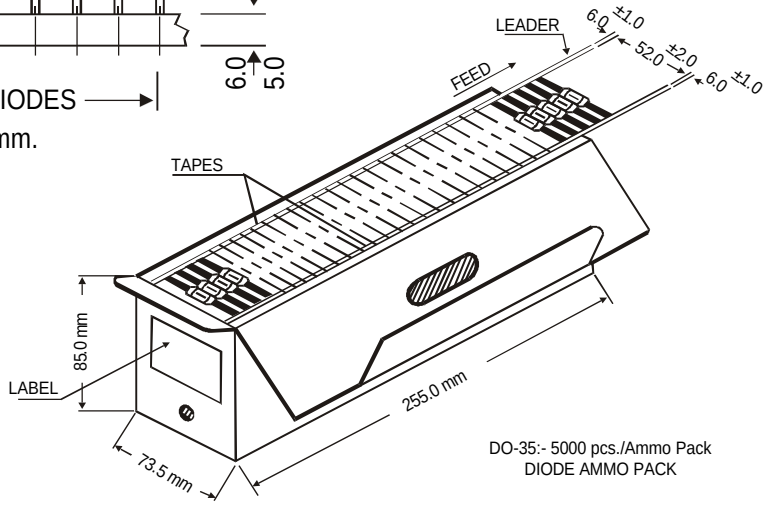
DIM	MIN	MAX
A	25.40	—
B	3.03	4.44
C	0.46	0.56
D	1.52	2.29

DO-35, 52mm Taping Specification



52 mm Taping Specification

1. T & A indicates Axial Tape & Ammo packing (52 mm Tape Spacing).
2. 300 mm (min) leader tape on every spool.
3. No. of empty places allowed 0.25% without consecutive empty places.
4. Ends of leads shall preferably not protrude beyond the tapes.
5. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.



DO-35:- 5000 pcs./Ammo Pack
DIODE AMMO PACK

On request also available in 26 mm Tape and Ammo Pack

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight /Qty	Size	Qty	Size	Qty	Gr Wt
DO-35 T&A	5K/ammo box	0.88 kg/5K pcs	10" x 3.5" x 3.5"	5.0K	12.7" x 12.7" x 20"	125.0K	25 kgs

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

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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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
email@cdil.com www.cdilsemi.com