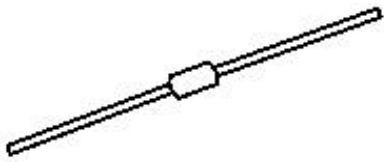
SILICON DIAC
BIDIRECTIONAL TRIGGER DIODES
GLASS PASSIVATED PNPN DEVICE

DB3, DB4

DO- 35
Glass Axial Package



Functioning as a Trigger Diode with a Fixed Voltage Reference, DB3/DB4 can be used in Conjunction with Triacs for Simplified Gate Control Circuits or as a Starting Element in Fluorescent Lamp Ballasts

ABSOLUTE MAXIMUM RATINGS (T_a=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation on Printed Circuit (L=10mm) (T_a=50°C)	P_{tot}	150	mW
Repetitive Peak on-State Current (t_p=20ms, f=100Hz)	I_{TRM}	2	A
Storage Temperature Range	T_{stg}	- 40 to +125	ºC
Junction Temperature Range	T_j	- 40 to +110	ºC
THERMAL RESISTANCE			
Junction to Ambient in free air	$R_{th\ (j-a)}$	400	ºC/W
Junction to Leads	$R_{th\ (j-l)}$	150	ºC/W

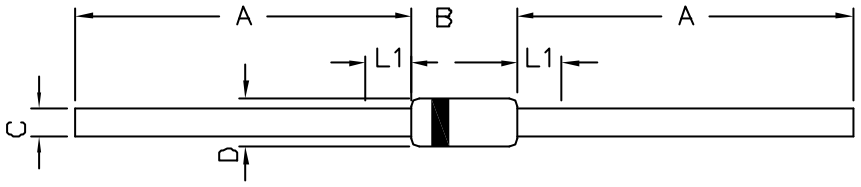
ELECTRICAL CHARACTERISTICS (T_j=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
* Breakover Voltage	V_{BO}	** C = 22nF see diagram 1			
		DB3	28	36	V
		DB4	35	45	V
Breakover Voltage Symmetry	$[I+V_{BO}I-I-V_{BO}I]$	** C = 22nF see diagram 1		$\pm$ 3	V
* Dynamic Breakover Voltage	$I\Delta V\pm I$	$\Delta1=[I_{BO}$ to I_F=10mA] see diagram 1	5		V
* Output Voltage	V_O	see diagram 2	5		V
* Breakover Current	I_{BO}	** C = 22nF		50	µA
* Rise Time	t_r	see diagram 3	TYP 1.5		µs
* Leakage Current	I_B	V_B = 0.5 V_{BO} max see diagram 1		10	µA

*** Electrical characteristic applicable in both forward and reverse directions**
**** Connected in parallel with the devices.**

DB3_DB4Rev_2 140104E

DO-35 Glass Axial Package

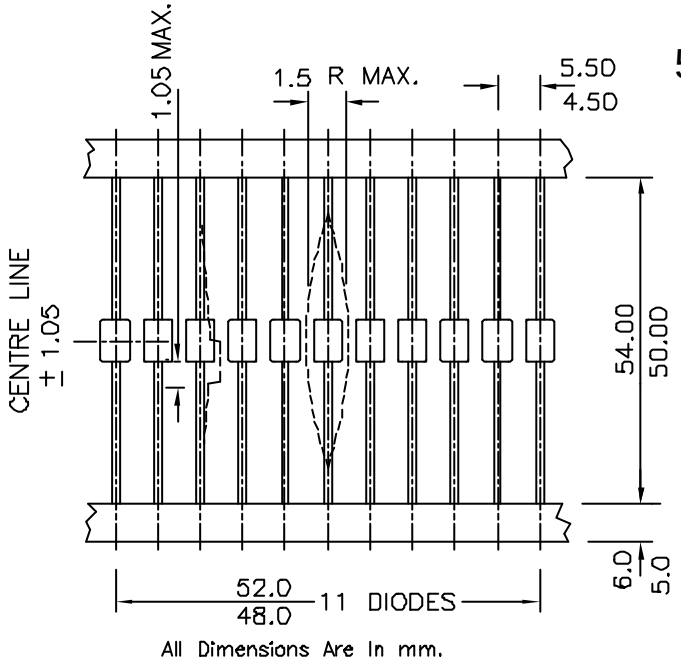


NOTES:–

Cathode is marked by Band.
All Dimensions Are In mm.

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

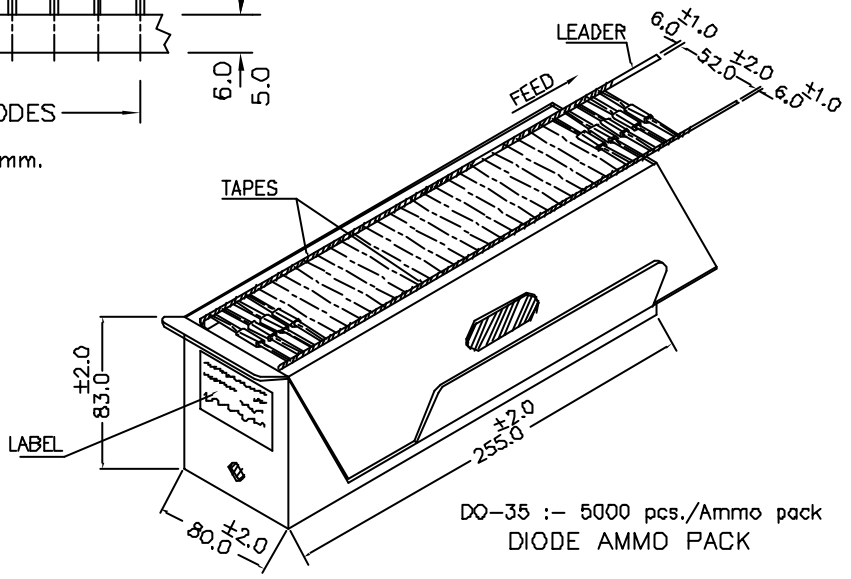
DO-35, 52mm Taping Specification



All Dimensions Are In mm.

52mm Taping Specification

1. T & A Indicates Axial Tape & Ammo packing (52 mm Tape Specing)
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	Qty
DO-35 T&A	5K/ammo box	0.88kg/5K pcs	10"X3.5"X3.5"	5.0K	12.7"X12.7"X20"	125.0K	25Kgs

DIAGRAM 1 :Current-voltage characteristics

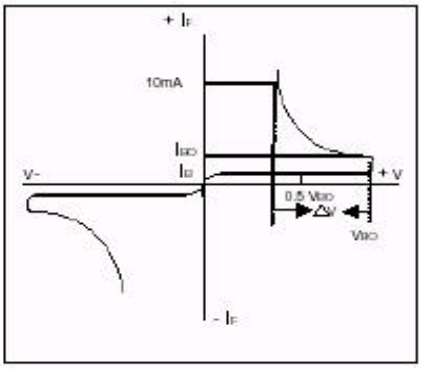


DIAGRAM 2 :Test circuit for output voltage

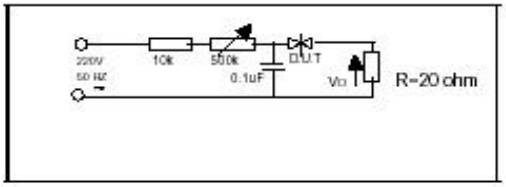
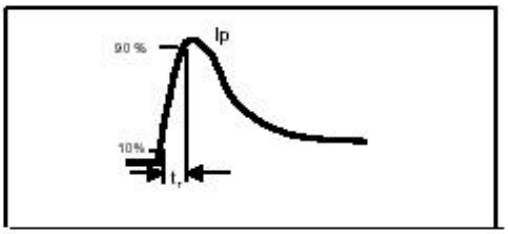
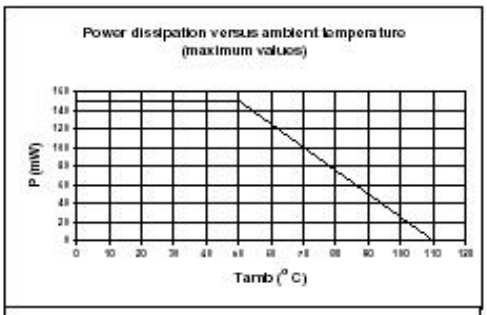
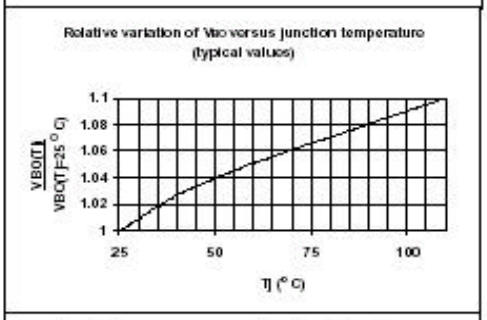
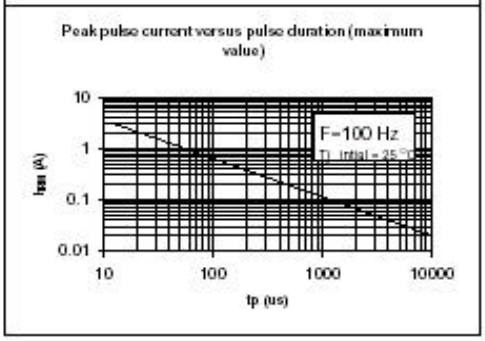


DIAGRAM 3 : Test circuit see diagram 2.
Adjust R for Ip=0.5A









DB3_DB4Rev_2 140104E

DO- 35
Glass Axial Package

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best ited 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 in the Data Sheet and 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 applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.

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
email@cdil.com www.cdilsemi.com

DB3_DB4Rev_2 140104E