

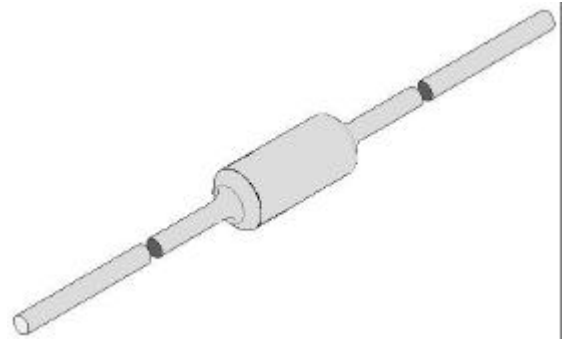
# DIAC

## Features

1.  $V_{BO}$ : 32V
2. Breakover voltage range: 28 to 36V

## Applications

Functioning as a trigger diode with a fixed voltage reference, the DB3 can be used in conjunction with triacs for simplified gate control circuits or as a starting element in fluorescent lamp ballasts.



## Absolute Maximum Ratings

(Limiting values)

Parameter	Symbol	Value	Unit
Repetitive peak on-state current ( $t_p=20\mu s$ $F=120$ Hz)	$I_{TRM}$	2	A
Operating junction temperature range	$T_j$	-40 ~ +125	?
Storage temperature range	$T_{stg}$	-40 ~ +125	?

**Electrical Characteristics**

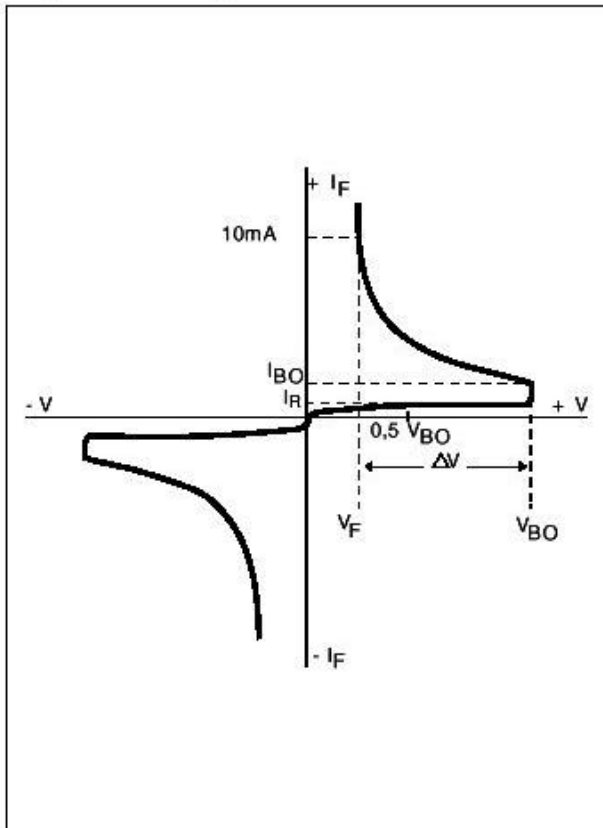
( $T_j=25^\circ$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Value	Unit	
Breakover voltage*	$V_{BO}$	$C=22nF^{**}$	MIN.	28	V
			TYP.	32	
			MAX.	36	
Breakover voltage symmetry	$ V_{BO1}-V_{BO2} $	$C=22nF^{**}$	MAX.	$\pm 3$	V
Dynamic breakover voltage*	? V	$V_{BO}$ and $V_F$ at 10mA	MIN.	5	V
Output voltage*	$V_O$	see diagram 2( $R=200 \Omega$ )	MIN.	5	V
Breakover current*	$I_{BO}$	$C=22nF^{**}$	MAX.	50	$\mu A$
Rise time*	$t_r$	see diagram 3	MAX.	2	$\mu s$
Leakage current*	$I_R$	$V_R=0.5V_{BO}$ max	MAX.	10	$\mu A$

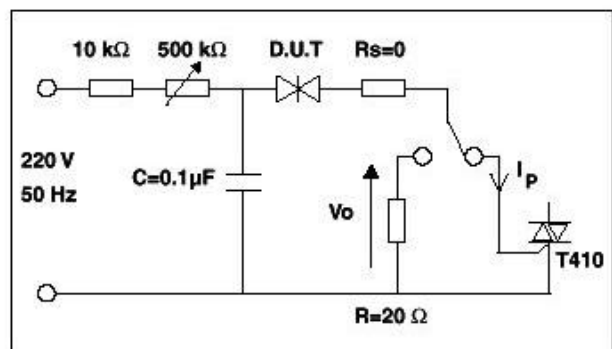
\*Applicable to both forward and reverse directions.

\*\*Connected in parallel to the device.

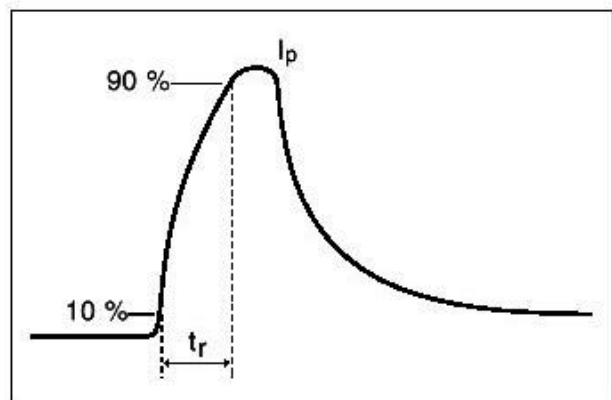
**Diagram 1: Voltage - current characteristic curve.**



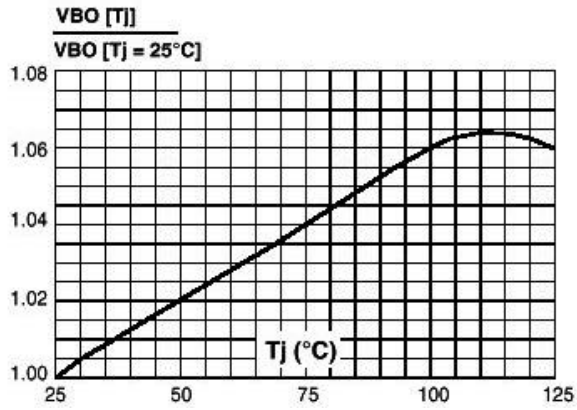
**Diagram 2: Test circuit.**



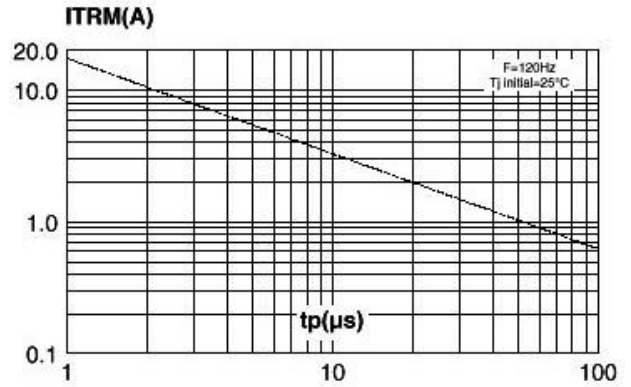
**Diagram 3: Rise time measurement.**



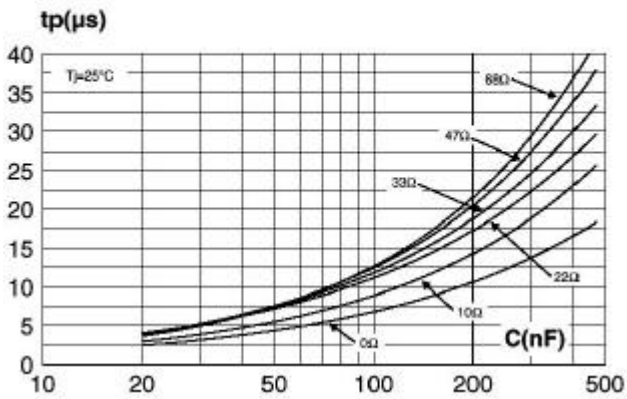
**Fig. 1:** Relative variation of VBO versus junction temperature (typical values)



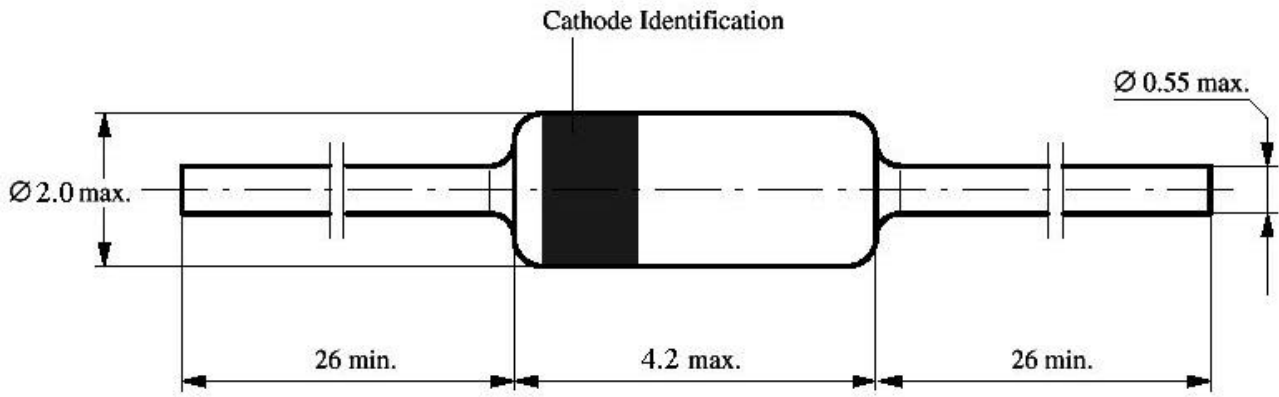
**Fig. 2:** Repetitive peak pulse current versus pulse duration (maximum values).



**Fig. 3:** Time duration while current pulse is higher 50mA versus C and Rs (typical values).



Dimensions in mm



Standard Glass Case  
JEDEC DO 35