



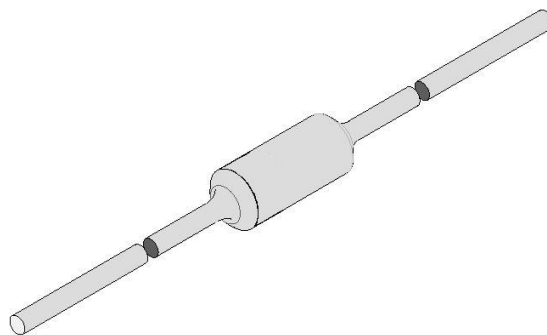
DIAC

Features

1. V_{BO} : 40V(TYP)
2. Breakover voltage range: 35 to 45V

Applications

Functioning as a trigger diode with a fixed voltage reference, the 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

(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

($T_j=25$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Value	Unit	
Breakover voltage*	V_{BO}		MIN.	35	V
			TYP.	40	
			MAX.	45	
Breakover voltage symmetry	$ V_{BO1}-V_{BO2} $		MAX.	± 4	V
Dynamic breakover voltage*	V	V_{BO} and V_F at 10mA	MIN.	5	V
Output voltage*	V_O	see diagram 2($R=20 \Omega$)	MIN.	5	V
Breakover current*	I_{BO}		MAX.	50	μA
Rise time*	t_r	see diagram 3	MAX.	2	μs
Leakage current*	I_R	$V_R=0.5V_{BO}$ max	MAX.	10	μA

*Applicable to both forward and reverse directions.

**Connected in parallel to the device.

Diagram 1: Voltage - current characteristic curve.

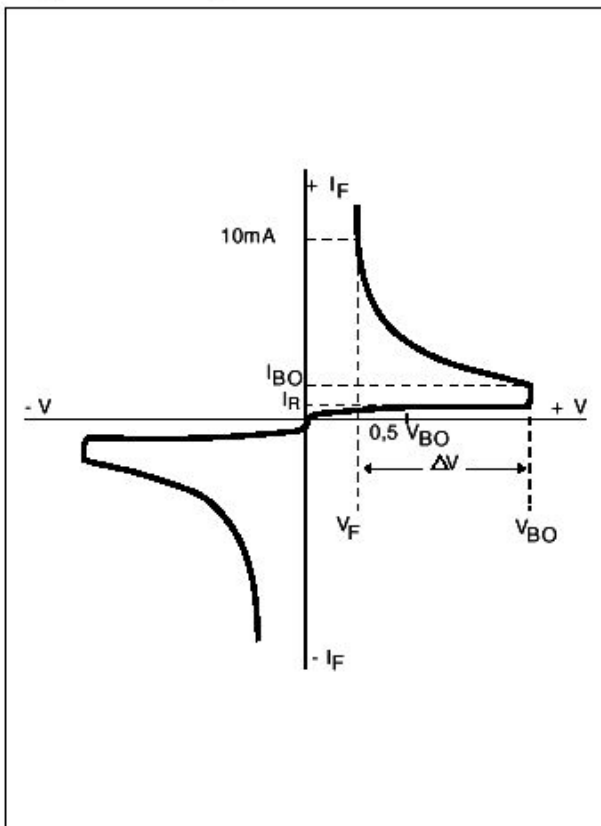


Diagram 2: Test circuit.

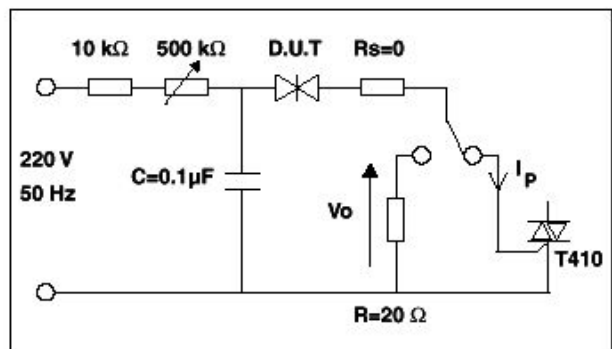


Diagram 3: Rise time measurement.

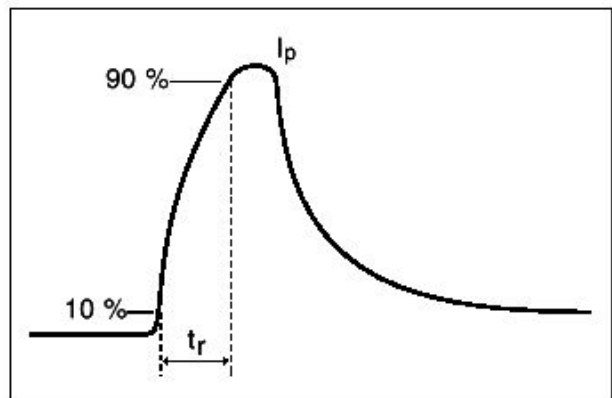




Fig. 1: Relative variation of VBO versus junction temperature (typical values)

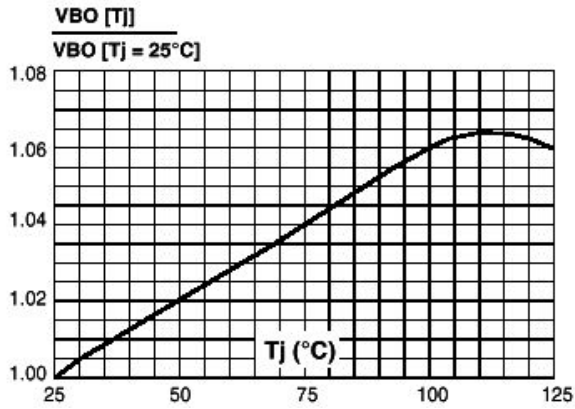


Fig. 2: Repetitive peak pulse current versus pulse duration (maximum values).

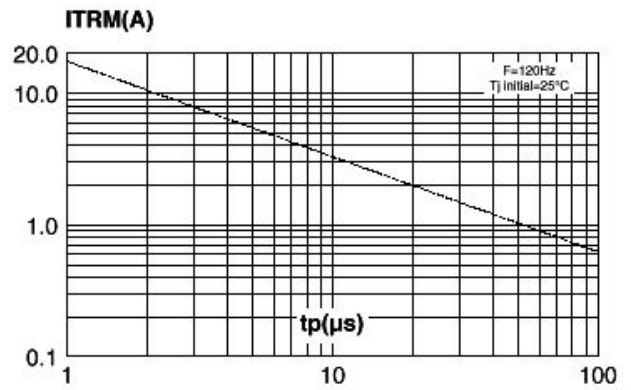
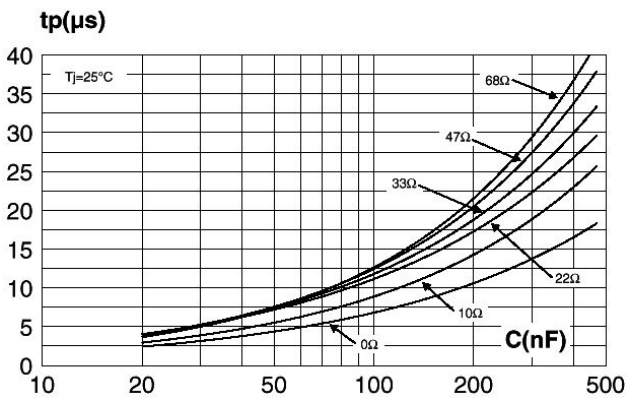
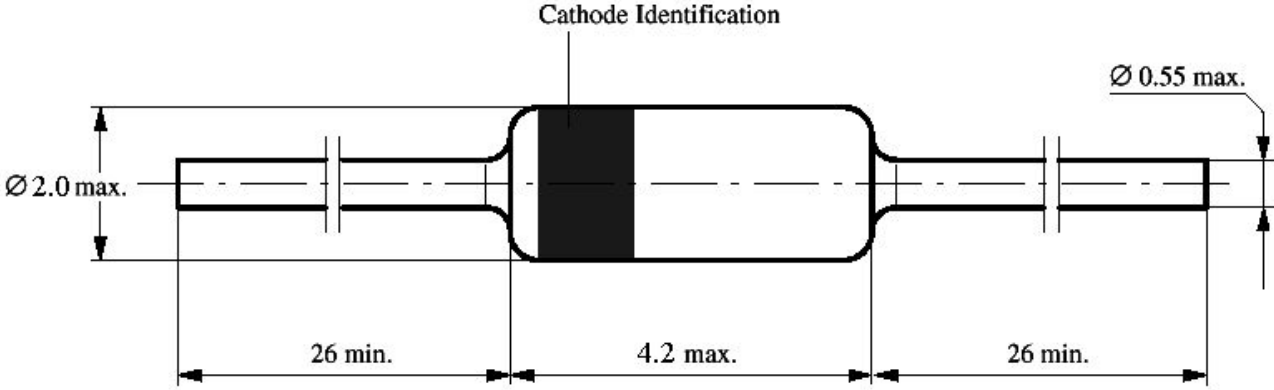


Fig. 3: Time duration while current pulse is higher 50mA versus C and Rs (typical values).





Dimensions in mm



Standard Glass Case
JEDEC DO 35