

# **DB3TG**

# DIAC

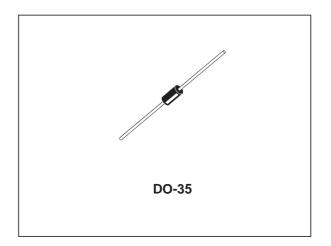
#### **FEATURES**

■ V<sub>BO</sub>: 32V

Low breakover current: 15µA max
Breakover voltage range: 30 to 34V

#### **DESCRIPTION**

Functioning as a trigger diode with a fixed voltage reference, the DB3TG 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)

Symbol	Parameter	Value	Unit
I <sub>TRM</sub>	Repetitive peak on-state current tp = 20 μs F= 120 Hz	2	А
Tstg Tj	Storage temperature range Operating junction temperature range	- 40 to + 125	°C

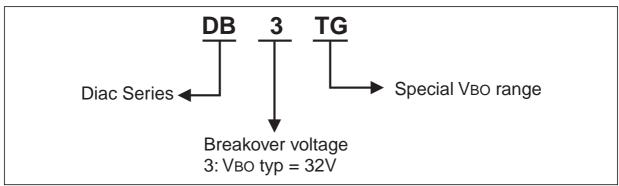
#### **DB3TG**

## **ELECTRICAL CHARACTERISTICS** (Tj = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions		Value	Unit
V <sub>BO</sub>	Breakover voltage *	C = 22nF **	MIN.	30	V
			TYP.	32	
			MAX.	34	
I V <sub>BO1</sub> - V <sub>BO2</sub> I	Breakover voltage symmetry	C = 22nF **	MAX.	± 2	V
ΔV	Dynamic breakover voltage *	V <sub>BO</sub> and V <sub>F</sub> at 10mA	MIN.	9	V
Vo	Output voltage *	see diagram 2 (R=20Ω)	MIN.	5	V
I <sub>BO</sub>	Breakover current *	C = 22nF **	MAX.	15	μΑ
tr	Rise time *	see diagram 3	MAX.	2	μs
I <sub>R</sub>	Leakage current *	$V_R = 0.5 V_{BO} \text{ max}$	MAX.	10	μА

<sup>\*</sup> Applicable to both forward and reverse directions.

#### **ORDERING INFORMATION**



#### OTHER INFORMATION

Part Number	Marking	Weight	Base Quantity	Packing Mode
DB3TG	DB3TG (Blue Body Coat)	0.15 g	5000	Tape & Reel

2/4

<sup>\*\*</sup> Connected in parallel to the device.

Diagram 1: Voltage - current characteristic curve.

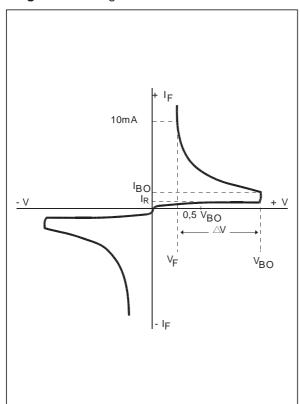


Diagram 2: Test circuit.

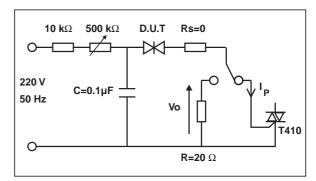
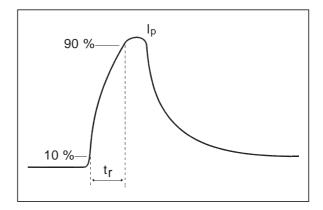
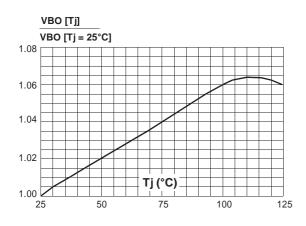


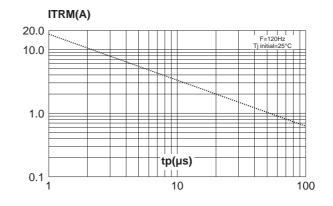
Diagram 3: Rise time measurement.



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

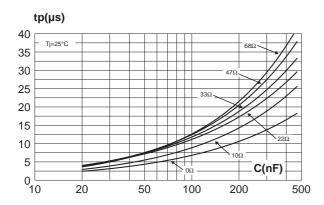


**Fig. 2:** Repetitive peak pulse current versus pulse duration (maximum values).



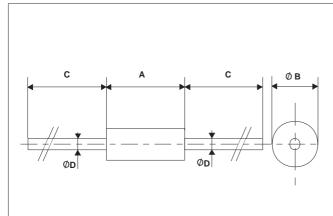
4

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



### PACKAGE MECHANICAL DATA (in millimeters)

DO-35



REF.	DIMENSIONS					
	Millimeters		Millimeters		Inc	hes
	Min.	Max.	Min.	Max.		
Α	3.05	4.50	0.120	0.177		
В	1.53	2.00	0.060	0.079		
С	28.00		1.102			
D	0.458	0.558	0.018	0.022		

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5/