DB3TG

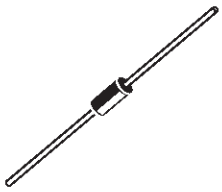
DIAC

FEATURES

- V_{BO} : 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.



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ABSOLUTE MAXIMUM RATINGS (limiting values)

Symbol	Parameter	Value	Unit
I_{TRM}	Repetitive peak on-state current tp = 20 µs F= 120 Hz	2	A
Tstg Tj	Storage temperature range Operating junction temperature range	- 40 to + 125	°C

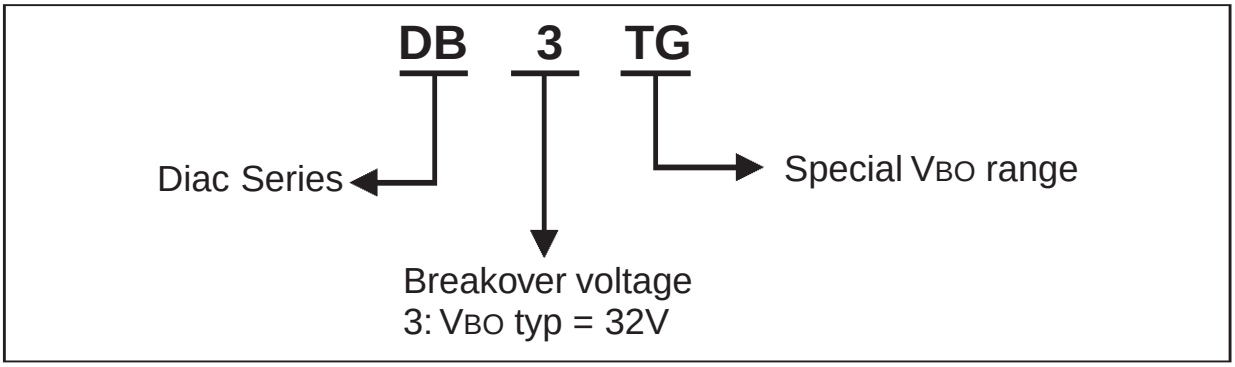
ELECTRICAL CHARACTERISTICS (Tj = 25°C unless otherwise specified)

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

* Applicable to both forward and reverse directions.

** Connected in parallel to the device.

ORDERING INFORMATION



OTHER INFORMATION

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

Diagram 1: Voltage - current characteristic curve.

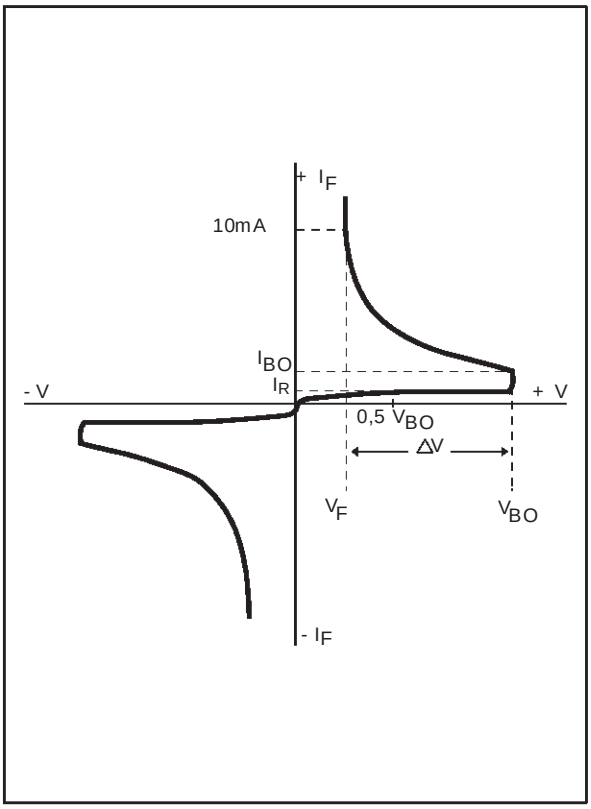


Diagram 2: Test circuit.

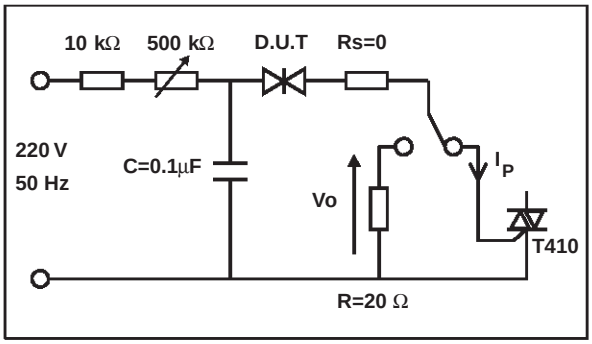


Diagram 3: Rise time measurement.

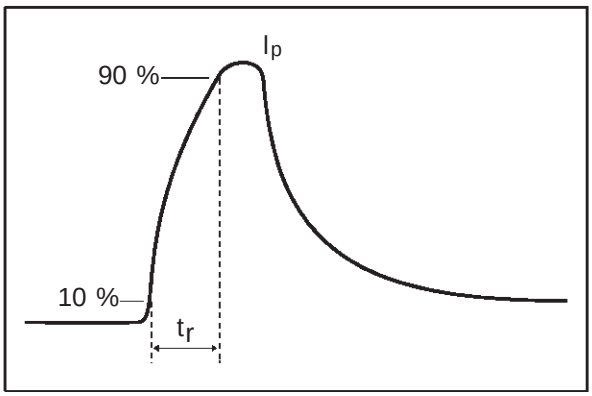


Fig. 1: Relative variation of VBO versus junction temperature (typical values)

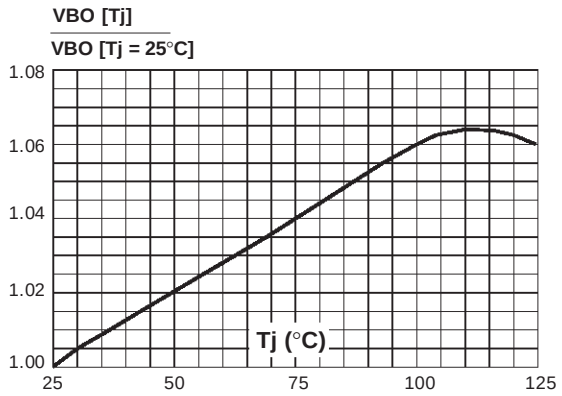


Fig. 2: Repetitive peak pulse current versus pulse duration (maximum values).

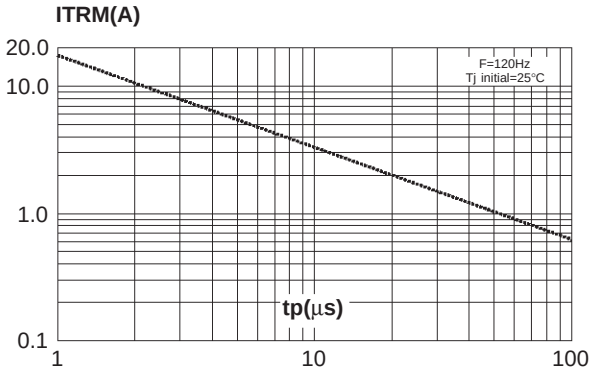
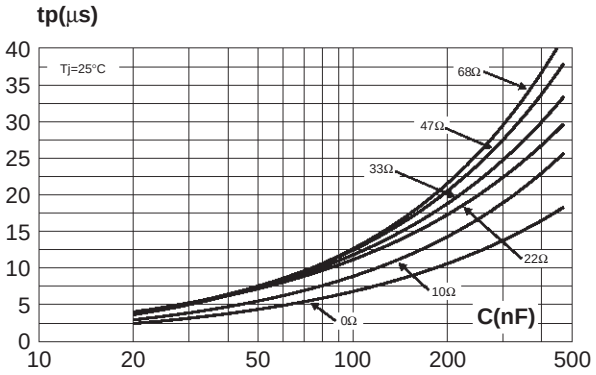


Fig. 3: Time duration while current pulse is higher 50mA versus C and Rs (typical values).



PACKAGE MECHANICAL DATA (in millimeters)
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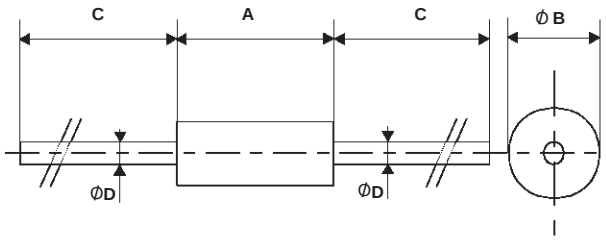

REF.	DIMENSIONS			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.05	4.50	0.120	0.177
B	1.53	2.00	0.060	0.079
C	12.7		0.500	
D	0.458	0.558	0.018	0.022