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[STMicroelectronics](#)  
[TMMDB3TG](#)

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# TMMDB3TG

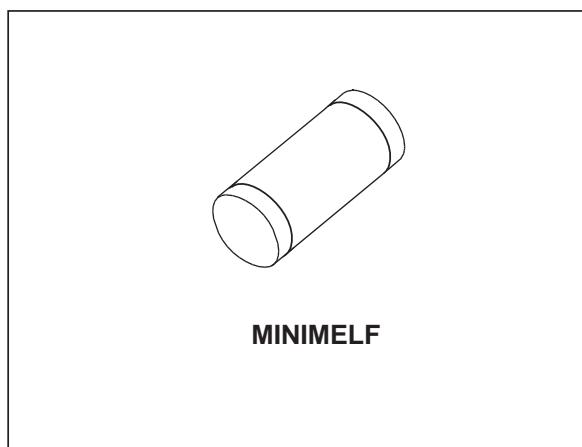
## DIAC

### FEATURES

- $V_{BO}$  : 32V
- Low breakover current: 15 $\mu$ A max
- Breakover voltage range: 30 to 34V

### DESCRIPTION

Functioning as a trigger diode with a fixed voltage reference, the TMMDB3TG 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
$I_{TRM}$	Repetitive peak on-state current $t_p = 20 \mu s$ $F = 120 \text{ Hz}$	2	A
$T_{stg}$ $T_j$	Storage temperature range Operating junction temperature range	- 40 to + 125	$^{\circ}C$

## TMMDB3TG

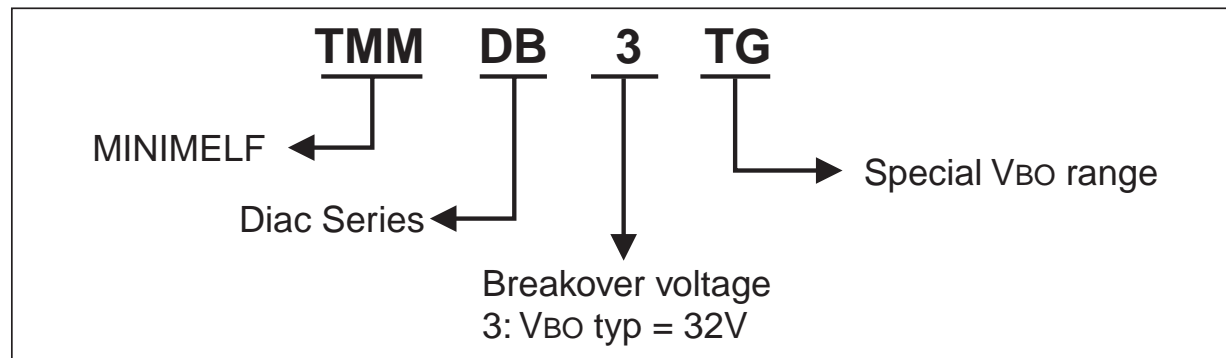
### ELECTRICAL CHARACTERISTICS (Tj = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Value	Unit	
V <sub>BO</sub>	Breakover voltage *	C = 22nF **	MIN.	30	V
			TYP.	32	
			MAX.	34	
V <sub>BO1</sub> - V <sub>BO2</sub>	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
V <sub>O</sub>	Output voltage *	see diagram 2 (R=20Ω)	MIN.	5	V
I <sub>BO</sub>	Breakover current *	C = 22nF **	MAX.	15	μA
tr	Rise time *	see diagram 3	MAX.	2	μs
I <sub>R</sub>	Leakage current *	V <sub>R</sub> = 0.5 V <sub>BO</sub> max	MAX.	10	μA

\* Applicable to both forward and reverse directions.

\*\* Connected in parallel to the device.

### ORDERING INFORMATION

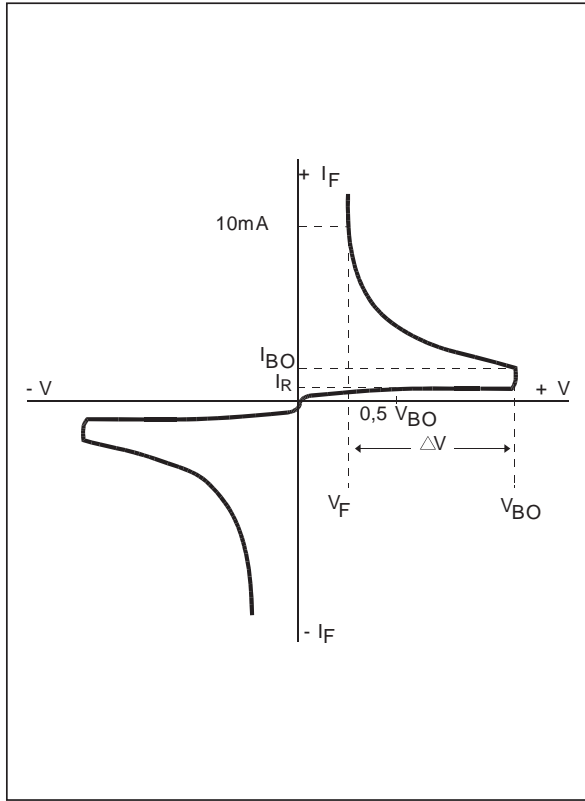


### OTHER INFORMATION

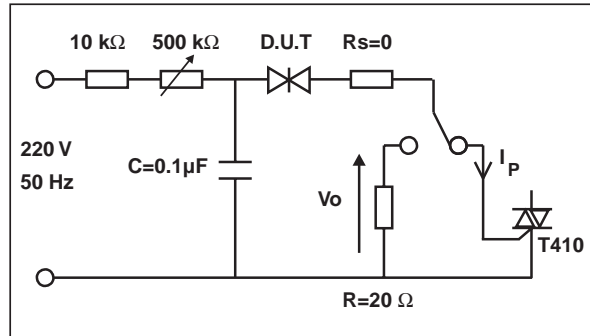
Part Number	Marking	Weight	Base Quantity	Packing Mode
TMMDB3TG	(None)	0.04 g	2500	Tape & Reel

**TMMDB3TG**

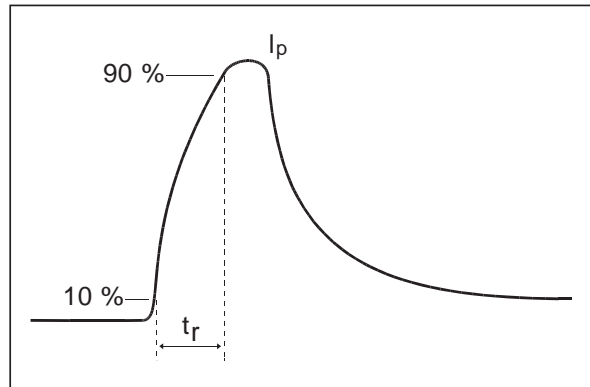
**Diagram 1:** Voltage - current characteristic curve.



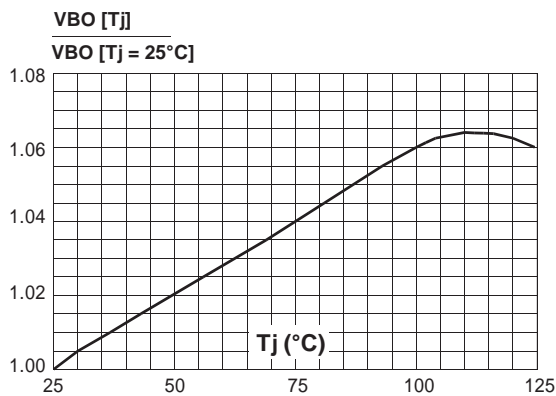
**Diagram 2:** Test circuit.



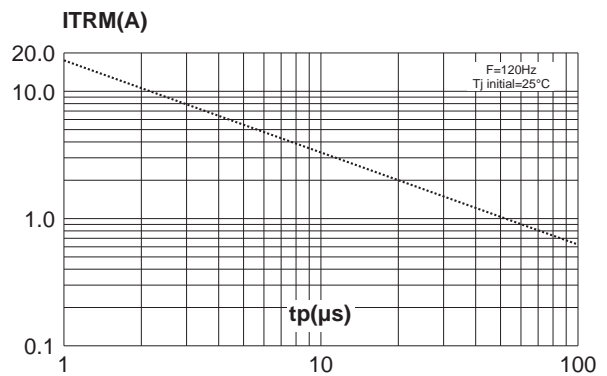
**Diagram 3:** Rise time measurement.



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

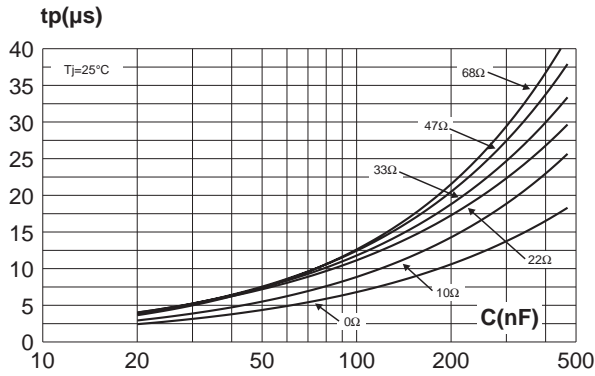


**Fig. 2:** Repetitive peak pulse current versus pulse duration (maximum values).

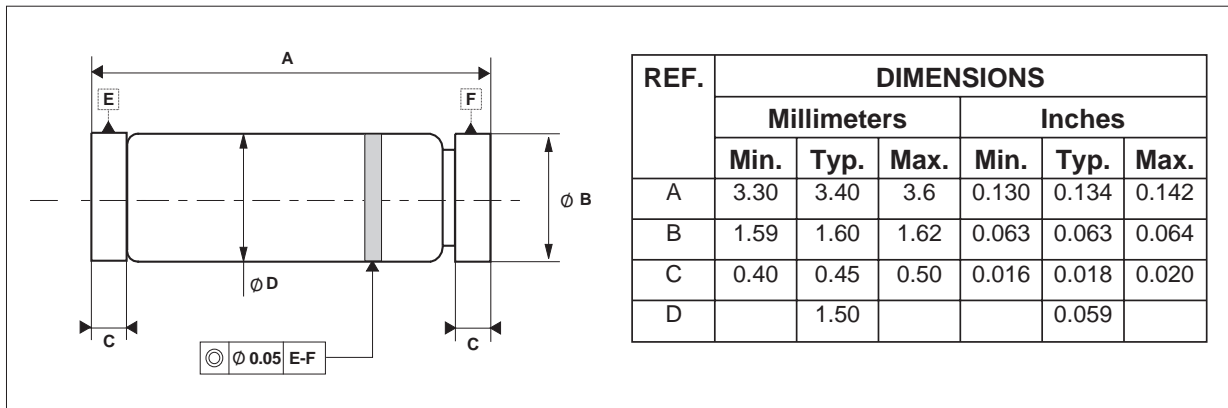


**TMMDB3TG**

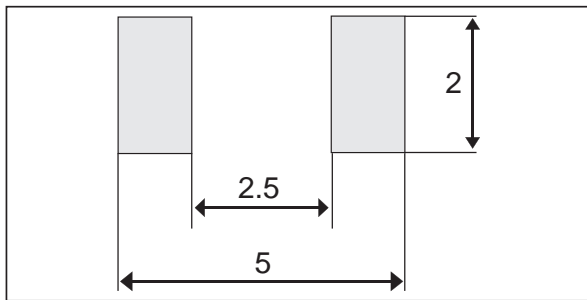
**Fig. 3:** Time duration while current pulse is higher 50mA versus C and Rs (typical values).



**PACKAGE MECHANICAL DATA (in millimeters)**  
MINIMELF



**FOOTPRINT**



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