



TMMDB3TG

DIAC

FEATURES

- V_{BO} : 32V
- Low breakover current: 15 μ 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

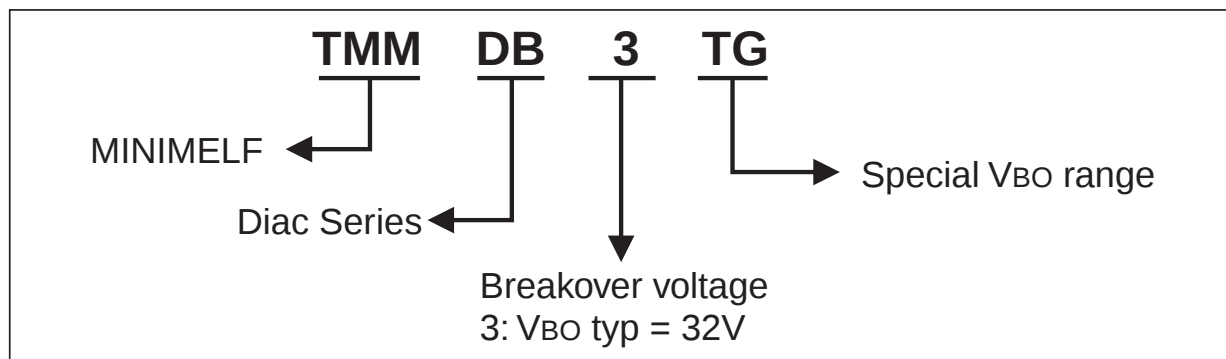
ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions		Value	Unit
V _{BO}	Breakover voltage *	C = 22nF **	MIN.	30	V
			TYP.	32	
			MAX.	34	
V _{BO1} - V _{BO2}	Breakover voltage symmetry	C = 22nF **	MAX.	± 2	V
Δ V	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
t _r	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
TMMDB3TG	(None)	0.04 g	2500	Tape & Reel

Diagram 1: Voltage - current characteristic curve.

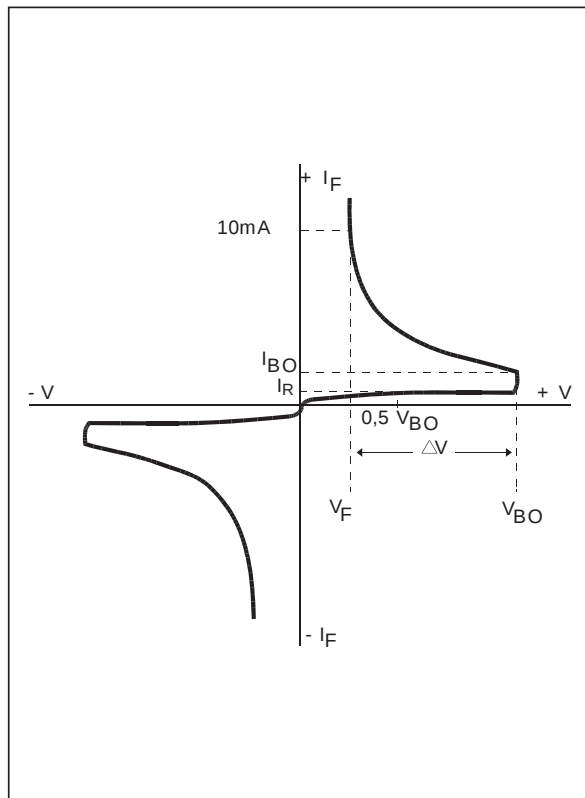


Diagram 2: Test circuit.

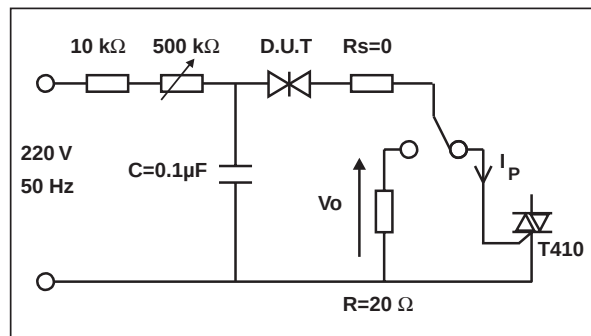


Diagram 3: Rise time measurement.

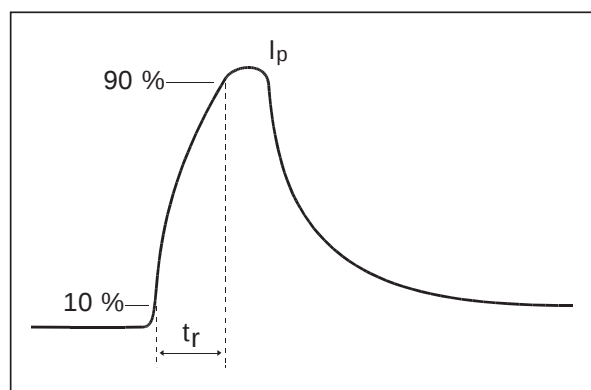


Fig. 1: Relative variation of VBO versus junction temperature (typical values)

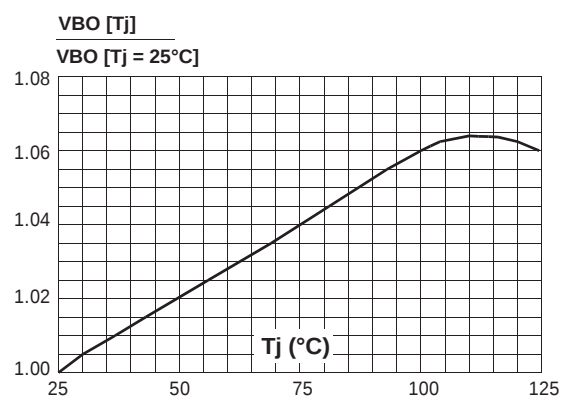


Fig. 2: Repetitive peak pulse current versus pulse duration (maximum values).

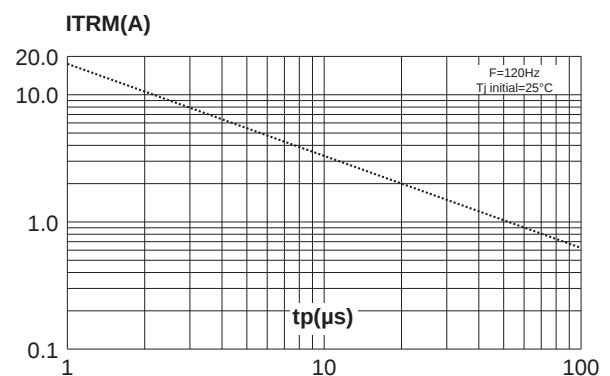
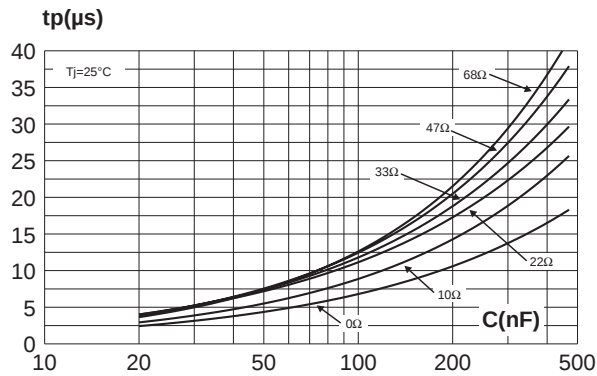
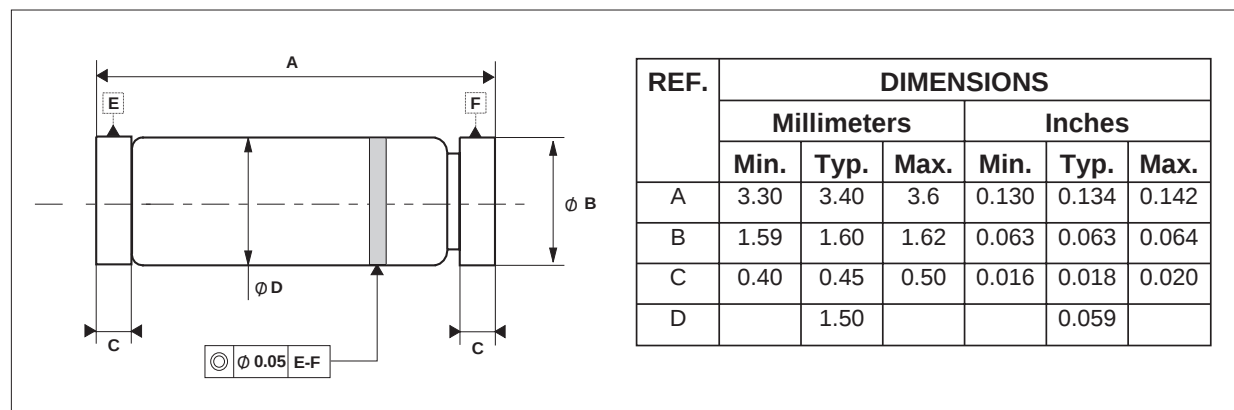


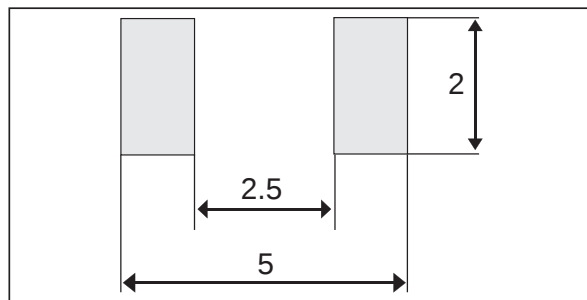
Fig. 3: Time duration while current pulse is higher 50mA versus C and Rs (typical values).



PACKAGE MECHANICAL DATA (in millimeters)
MINIMELF



FOOTPRINT



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