# mail

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### TMMDB3TG

### DIAC

#### FEATURES

- VBO: 32V
- Low breakover current: 15µA 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 <sub>TRM</sub>	Repetitive peak on-state current tp = $20 \mu s$ F= $120 Hz$	2	A
Tstg Tj	Storage temperature range Operating junction temperature range	- 40 to + 125	°C

#### TMMDB3TG

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 *	$V_{BO}$ and $V_{F}$ 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	μA
tr	Rise time *	see diagram 3	MAX.	2	μs
IR	Leakage current *	$V_{\rm R} = 0.5 V_{\rm BO}  \text{max}$	MAX.	10	μA

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

\* 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

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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



REF.	DIMENSIONS					
	Millimeters			Inches	;	
	Min.	Тур.	Max.	Min.	Тур.	Max.
А	3.30	3.40	3.6	0.130	0.134	0.142
В	1.59	1.60	1.62	0.063	0.063	0.064
С	0.40	0.45	0.50	0.016	0.018	0.020
D		1.50			0.059	

#### FOOTPRINT



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