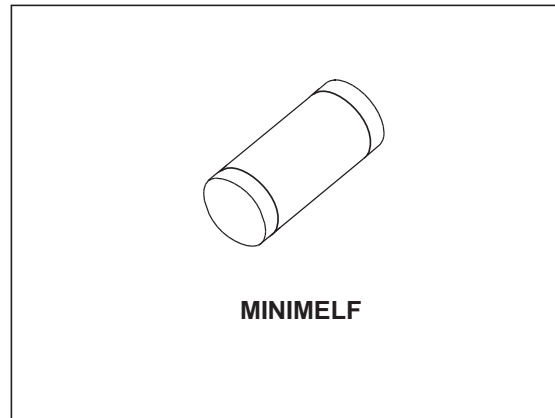


FEATURES

- 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

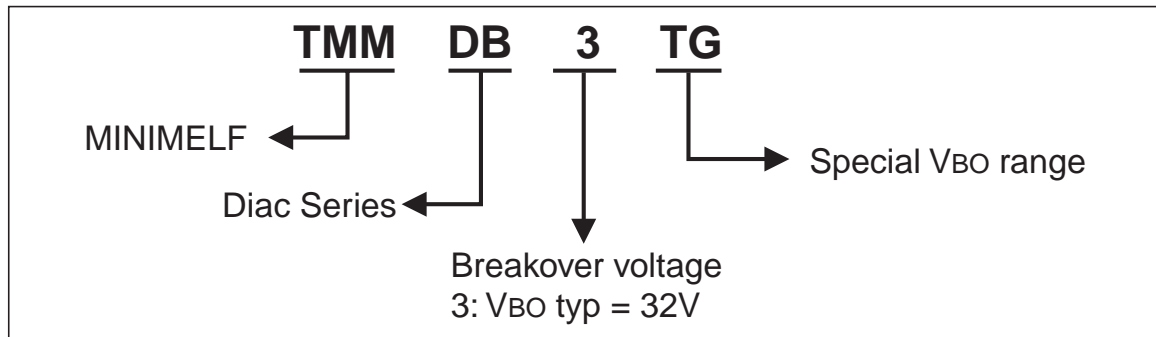
ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

| 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 |
| 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 |
| 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.

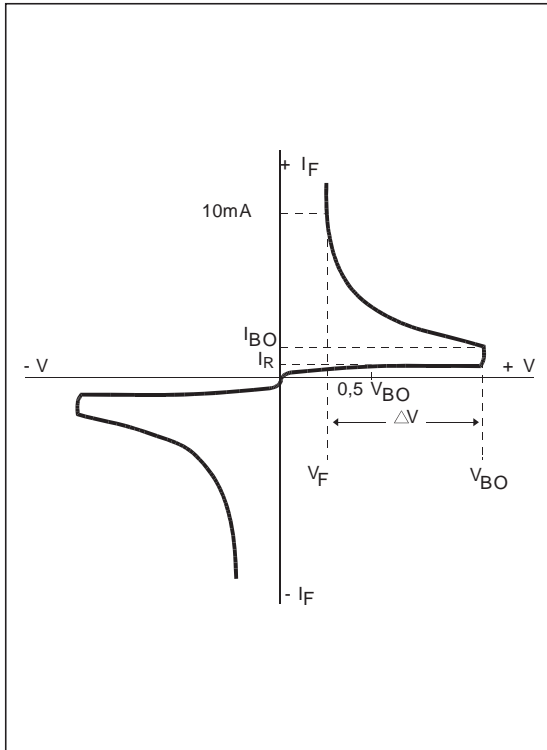


Diagram 2: Test circuit.

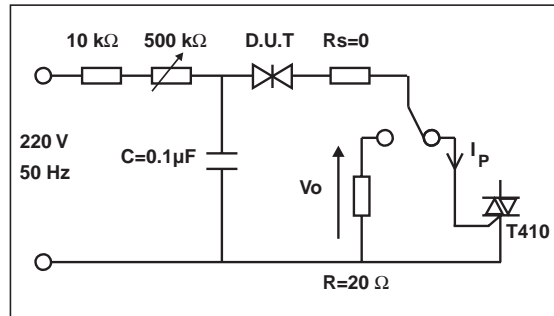


Diagram 3: Rise time measurement.

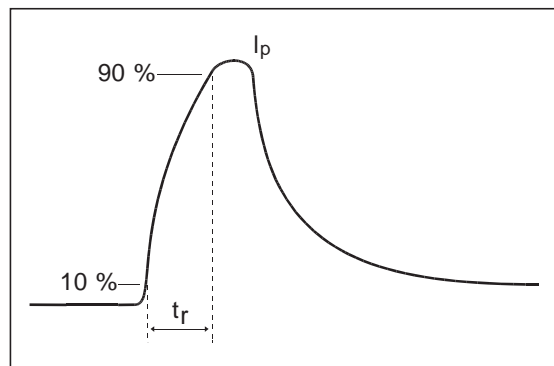


Fig. 1: Relative variation of VBO versus junction temperature (typical values)

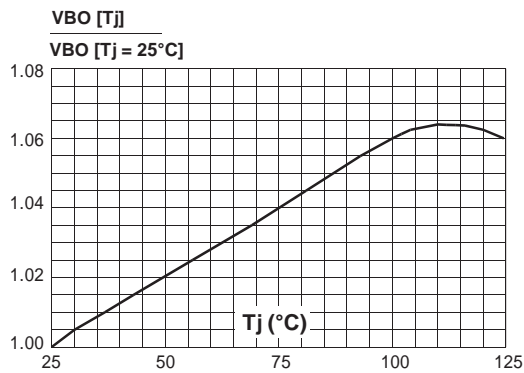


Fig. 2: Repetitive peak pulse current versus pulse duration (maximum values).

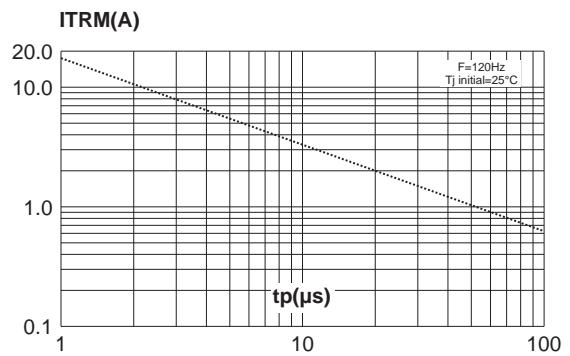
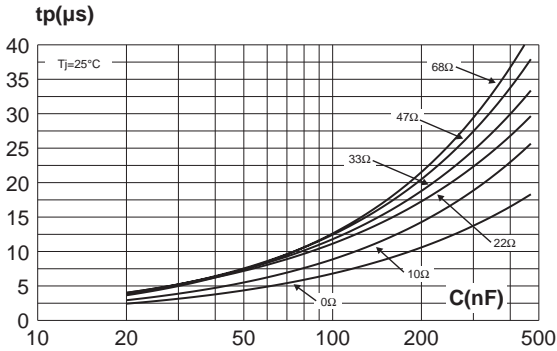
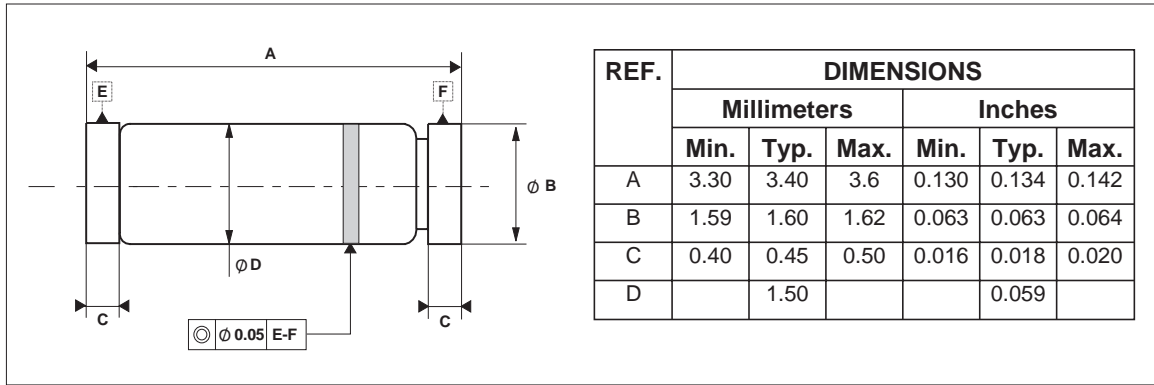


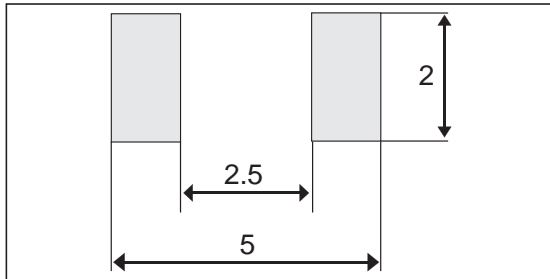
Fig. 3: Time duration while current pulse is higher 50mA versus C and Rs (typical values).



PACKAGE MECHANICAL DATA (in millimeters)
MINIMELF



FOOTPRINT



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